

Question #1 of 60

Question ID: 627755

Use the following information to answer Questions 61 through 66.

Mikale Natschavin, CFA is the managing director of Blue Lotus LP, a boutique investment bank specializing in M&A consulting in the professional services arena. Blue Lotus also manages a fund (Xeta fund) for several institutional clients. The fund was run by a team of four managers. During the recent downturn, commensurate with the decline in the size of the fund, Blue Lotus downsized the firm.

Paul Vakil, CFA, one of the managers of Xeta, was laid off by Blue Lotus. During his exit interview Natschavin wished Vakil well and, on behalf of the firm, gave him permission to use Xeta fund's past performance when seeking new employment opportunities. Vakil included the performance of the fund to demonstrate his success but did not give any indication of a team approach. Vakil also did not mention to Natschavin or the personnel manager that he was still in possession of the company-issued laptop. Vakil had stored several models the team had developed in pursuing investment strategies on that laptop's hard disk.

Within a few months, Vakil joined the equity research department of Patarsby and Singly, a brokerage firm. Vakil, with the help of a quant specialist at Patarsby, improved the models and started using them in his new role. Things turned out very well for Vakil at Patarsby, and clients waited eagerly for release of his monthly recommendations. During a society event, Vakil ran into Alia Dutt, one of the other team managers of Xeta fund. Dutt congratulated Vakil. Later in the evening, Vakil spoke to Dutt about one of the companies he is following-Sandhirst Inc. Vakil stated that his preliminary research indicates that the short-term outlook for Sandhirst is very promising. Dutt also met Neil Savin, Frapco Inc.'s controller at the event. Frapco is a national grocery chain and a long-time client of Blue Lotus. Savin informed Dutt that the new layout in the stores has been a hit, and that he expects revenues and earnings for the current quarter to be well above consensus forecast.

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The following week at a charity golf tournament, Vakil met with Bob Snead, his college roommate. Snead was a very successful hedge fund manager. Both of the funds run by Smead were currently closed to new investment, though Snead was considering reopening the investments in the near future. At Vakil's insistence, Snead agreed to allow new investments into the two funds using a newly started intermediary fund as long as Vakil is the fund's manager. Vakil quickly convinced his bosses at Patarsby to open an intermediary fund and marketed the fund to existing Patarsby clients as a way into Snead hedge funds. Not knowing how long the deal with Snead would hold up, and wanting to quickly ramp up assets under management, Vakil accepted deposits from all Patarsby clients, even some that were relatively new accounts.

Regarding Vakil's reference to Xeta fund's performance in his resume, which of the following is *most accurate* regarding compliance with the Code and Standards? Vakil violated:

- A) Standard III(D) - Performance Presentation.
- B) Standard IV(A) -Duties to Employer: Loyalty.
- C) Standard IIID - Performance Presentation as well as Standard IV(A) - Duties to Employer: Loyalty.

Question #2 of 60

Question ID: 627756

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Vakil's use of the Blue Lotus models at Patarsby is *least likely* to be a violation under:

- A) Standard I(C) - Professionalism: Misrepresentation.
- B) Standard II(A) - Integrity of Capital Markets: Material Nonpublic Information.
- C) Standard IV(A) - Duties to Employer: Loyalty.

Question #3 of 60

Question ID: 627757

Mikale Natschavin, CFA is the managing director of Blue Lotus LP, a boutique investment bank specializing in M&A consulting in the professional services arena. Blue Lotus also manages a fund (Xeta fund) for several institutional clients. The fund was run by a team of four managers. During the recent downturn, commensurate with the decline in the size of the fund, Blue Lotus downsized the firm.

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Vakil's conversation with Dutt regarding Sandhirst stock is *most likely* a violation of:

- A) Standard IV(A) - Duties to Employer: Loyalty.
- B) Standard II(A) - Integrity of Capital Markets: Material Nonpublic Information.
- C) Standard III(C) - Duties to Clients: Suitability.

Question #4 of 60

Question ID: 627758

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With regards to investments in Sandhirst stock and retail ETF, Dutt *most likely* violated:

- A) Standard II(A) - Material and Nonpublic Information by investing in Sandhirst stock but not by investing in the retail ETF.
- B) Standard II(A) - Material and Nonpublic Information by investing in the retail ETF but not by investing in Sandhirst stock.
- C) Standard II(A) - Material and Nonpublic Information in both instances.

Question #5 of 60

Question ID: 627759

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Dutt's recommendation of Frapco stock in the online forum is *most likely*:

- A) a violation of Standard II(A) - Material and Nonpublic Information even though she attributed the recommendation to publicly available information.
- B) not a violation under Standard II(A) - Material and Nonpublic Information.
- C) violation of Standard III(E): Preservation of Confidentiality.

Question #6 of 60

Question ID: 627760

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Vakil's conduct regarding the intermediary fund to channel investments into Snead funds is *most likely* a violation under:

- A) Standard II(B) Integrity of Capital Markets: Market Manipulation.
- B) Standard III(D) Duties to Clients: Suitability.
- C) Standard III(D) Duties to Clients: Fair Dealing.

Question #7 of 60

Question ID: 691607

Use the following information to answer Questions 67 through 72.

Research associate Kate Sawyer is responsible for identifying the determinants of performance for her firm's Progressive Fund (PF). All tests performed at Sawyer's firm are examined at the 0.05 level of significance. Sawyer examines the following regressions using monthly data observed for a 36 month period:

$$(1) \quad R_{PF,t} = b_0 + b_1 R_{M,t} + b_2 VMG_t + e_{PF,t}$$

$$(2) \quad e_{PF,t}^2 = a_0 + a_1 R_{M,t} + a_2 VMG_t + u_{PF,t}$$

where:

$R_{PF,t}$ = the return on the Progressive Fund in month t

$R_{M,t}$ = the return on the Wilshire 5000 stock market index in month t

VMG_t = the return on value stocks minus the return on growth stocks in month t

$e_{PF,t}^2$ = the estimated squared regression errors derived from equation (1)

Exhibit 1: Equation (1) Regression Results

Variable	Coefficient	p-values
Constant	-0.005	0.030
R_M	1.250	0.001
VMG	0.200	0.980

The R^2 from equation (1) equals 0.80. A colleague, Jack Lockhart, makes two recommendations to Sawyer:

Recommendation 1: My research indicates that inflation-rate changes are highly correlated with the Wilshire 5000 stock index returns. Therefore, I recommend adding the inflation change variable to your regression.

Recommendation 2: My research indicates that the slope coefficients of your regression changed significantly after the passage of Regulation Fair Disclosure, which took place in the middle of your 3-year sample period.

Your regression pools across two distinct sample periods. Therefore, I recommend correcting your

your regression pools across the distinct sample periods. Therefore, I recommend correcting your current regression equation (1) for model misspecification.

In her conversation with Lockhart, Sawyer explains that she is concerned that her regression equation (1) may ignore other important determinants of performance for the Progressive Fund. Sawyer explains that she is aware that the omission of important independent variables affects the quality of the parameter estimates of the regression. She makes the following claims, assuming the omitted variables are correlated with the included variables:

Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

Of the slopes for the two independent variables, R_M and VMG , determine which are statistically significant at the 0.05 level?

- A) Both slopes are statistically significant.
- B) Only the slope for R_M is statistically significant.
- C) Only the slope for VMG is statistically significant.

Question #8 of 60

Question ID: 691608

Research associate Kate Sawyer is responsible for identifying the determinants of performance for her firm's Progressive Fund (PF). All tests performed at Sawyer's firm are examined at the 0.05 level of significance. Sawyer examines the following regressions using monthly data observed for a 36 month period:

$$(1) \quad R_{PF,t} = b_0 + b_1 R_{M,t} + b_2 VMG_t + e_{PF,t}$$

$$(2) \quad \hat{e}_{PF,t}^2 = a_0 + a_1 R_{M,t} + a_2 VMG_t + u_{PF,t}$$

where:

$R_{PF,t}$ = the return on the Progressive Fund in month t

$R_{M,t}$ = the return on the Wilshire 5000 stock market index in month t

VMG_t = the return on value stocks minus the return on growth stocks in month t

$\hat{e}_{PF,t}^2$ = the estimated squared regression errors derived from equation (1)

Exhibit 1: Equation (1) Regression Results

Variable	Coefficient	p-values
Constant	-0.005	0.030
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Recommendation 2: My research indicates that the slope coefficients of your regression changed significantly after the passage of Regulation Fair Disclosure, which took place in the middle of your 3-year sample period. Your regression pools across two distinct sample periods. Therefore, I recommend correcting your current regression equation (1) for model misspecification.

In her conversation with Lockhart, Sawyer explains that she is concerned that her regression equation (1) may ignore other important determinants of performance for the Progressive Fund. Sawyer explains that she is aware that the omission of important independent variables affects the quality of the parameter estimates of the regression. She makes the following claims, assuming the omitted variables are correlated with the included variables:

Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

The R^2 derived for equation (1) indicates which of the following for equation (1)?

- A) Regression sum of squares exceeds the error sum of squares.
- B) Regression sum of squares exceeds the total sum of squares.
- C) Mean regression sum of squares is less than the mean total sum of squares.

Question #9 of 60

Question ID: 691609

Research associate Kate Sawyer is responsible for identifying the determinants of performance for her firm's Progressive Fund (PF). All tests performed at Sawyer's firm are examined at the 0.05 level of significance. Sawyer examines the following regressions using monthly data observed for a 36 month period:

$$(1) \quad R_{PF,t} = b_0 + b_1 R_{M,t} + b_2 VMG_t + e_{PF,t}$$

$$(2) \quad \hat{e}_{PF,t}^2 = a_0 + a_1 R_{M,t} + a_2 VMG_t + u_{PF,t}$$

where:

$R_{PF,t}$ = the return on the Progressive Fund in month t

$R_{M,t}$ = the return on the Wilshire 5000 stock market index in month t

VMG_t = the return on value stocks minus the return on growth stocks in month t

$\hat{e}_{PF,t}^2$ = the estimated squared regression errors derived from equation (1)

Exhibit 1: Equation (1) Regression Results

Variable	Coefficient	p-values
Constant	-0.005	0.030
R_M	1.250	0.001
VMG	0.000	0.000

VMG	0.200	0.980
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The R^2 from equation (1) equals 0.80. A colleague, Jack Lockhart, makes two recommendations to Sawyer:

- Recommendation 1: My research indicates that inflation-rate changes are highly correlated with the Wilshire 5000 stock index returns. Therefore, I recommend adding the inflation change variable to your regression.
- Recommendation 2: My research indicates that the slope coefficients of your regression changed significantly after the passage of Regulation Fair Disclosure, which took place in the middle of your 3-year sample period. Your regression pools across two distinct sample periods. Therefore, I recommend correcting your current regression equation (1) for model misspecification.

In her conversation with Lockhart, Sawyer explains that she is concerned that her regression equation (1) may ignore other important determinants of performance for the Progressive Fund. Sawyer explains that she is aware that the omission of important independent variables affects the quality of the parameter estimates of the regression. She makes the following claims, assuming the omitted variables are correlated with the included variables:

Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

Sawyer decides to test regression equation (1) for the existence of conditional heteroskedasticity. Sawyer is likely to conclude that her regression does not exhibit conditional heteroskedasticity if the R^2 from equation (2) is:

- A) close to 0.
- B) close to 1.
- C) close to 0.80.

Question #10 of 60

Question ID: 691610

Research associate Kate Sawyer is responsible for identifying the determinants of performance for her firm's Progressive Fund (PF). All tests performed at Sawyer's firm are examined at the 0.05 level of significance. Sawyer examines the following regressions using monthly data observed for a 36 month period:

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$$(2) \quad \hat{e}_{PF,t}^2 = a_0 + a_1 R_{M,t} + a_2 VMG_t + u_{PF,t}$$

where:

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$R_{M,t}$ = the return on the Wilshire 5000 stock market index in month t

VMG_t = the return on value stocks minus the return on growth stocks in month t

$\hat{e}_{PF,t}^2$ = the estimated squared regression errors derived from equation (1)

Exhibit 1: Equation (1) Regression Results

<i>Variable</i>	<i>Coefficient</i>	<i>p-values</i>
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- Recommendation 2: My research indicates that the slope coefficients of your regression changed significantly after the passage of Regulation Fair Disclosure, which took place in the middle of your 3-year sample period. Your regression pools across two distinct sample periods. Therefore, I recommend correcting your current regression equation (1) for model misspecification.

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Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

Regarding Lockhart's Recommendation 1, the econometric problem that is *most likely* to be introduced by including the inflation change variable in regression equation (1) is:

- A) model misspecification.
- B) serial correlation.
- C) multicollinearity.

Question #11 of 60

Question ID: 691611

Research associate Kate Sawyer is responsible for identifying the determinants of performance for her firm's Progressive Fund (PF). All tests performed at Sawyer's firm are examined at the 0.05 level of significance. Sawyer examines the following regressions using monthly data observed for a 36 month period:

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where:

$R_{PF,t}$ = the return on the Progressive Fund in month t

$R_{M,t}$ = the return on the Wilshire 5000 stock market index in month t

VMG_t = the return on value stocks minus the return on growth stocks in month t

$\hat{e}_{PF,t}^2$ = the estimated squared regression errors derived from equation (1)

Exhibit 1: Equation (1) Regression Results

Variable	Coefficient	p-values
Constant	-0.005	0.030
R_M	1.250	0.001
VMG	0.200	0.980

The R^2 from equation (1) equals 0.80. A colleague, Jack Lockhart, makes two recommendations to Sawyer:

- Recommendation 1: My research indicates that inflation-rate changes are highly correlated with the Wilshire 5000 stock index returns. Therefore, I recommend adding the inflation change variable to your regression.
- Recommendation 2: My research indicates that the slope coefficients of your regression changed significantly after the passage of Regulation Fair Disclosure, which took place in the middle of your 3-year sample period. Your regression pools across two distinct sample periods. Therefore, I recommend correcting your current regression equation (1) for model misspecification.

In her conversation with Lockhart, Sawyer explains that she is concerned that her regression equation (1) may ignore other important determinants of performance for the Progressive Fund. Sawyer explains that she is aware that the omission of important independent variables affects the quality of the parameter estimates of the regression. She makes the following claims, assuming the omitted variables are correlated with the included variables:

Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

Regarding Lockhart's Recommendation 2, the *most likely* form of model misspecification to which he refers is:

- A) stationarity model misspecification.
- B) time-series model misspecification.
- C) functional form model misspecification.

Question #12 of 60

Question ID: 691612

Research associate Kate Sawyer is responsible for identifying the determinants of performance for her firm's Progressive Fund (PF). All tests performed at Sawyer's firm are examined at the 0.05 level of significance. Sawyer examines the following regressions using monthly data observed for a 36 month period:

$$(1) \quad R_{PF,t} = b_0 + b_1 R_{M,t} + b_2 VMG_t + e_{PF,t}$$

$$(2) \quad \hat{e}_{PF,t}^2 = a_0 + a_1 R_{M,t} + a_2 VMG_t + u_{PF,t}$$

where:

$R_{PF,t}$ = the return on the Progressive Fund in month t

$R_{M,t}$ = the return on the Wilshire 5000 stock market index in month t

VMG_t = the return on value stocks minus the return on growth stocks in month t

$\hat{\epsilon}_{PF,t}^2$ = the estimated squared regression errors derived from equation (1)

Exhibit 1: Equation (1) Regression Results

Variable	Coefficient	p-values
Constant	-0.005	0.030
R_M	1.250	0.001
VMG	0.200	0.980

The R^2 from equation (1) equals 0.80. A colleague, Jack Lockhart, makes two recommendations to Sawyer:

- Recommendation 1: My research indicates that inflation-rate changes are highly correlated with the Wilshire 5000 stock index returns. Therefore, I recommend adding the inflation change variable to your regression.
- Recommendation 2: My research indicates that the slope coefficients of your regression changed significantly after the passage of Regulation Fair Disclosure, which took place in the middle of your 3-year sample period. Your regression pools across two distinct sample periods. Therefore, I recommend correcting your current regression equation (1) for model misspecification.

In her conversation with Lockhart, Sawyer explains that she is concerned that her regression equation (1) may ignore other important determinants of performance for the Progressive Fund. Sawyer explains that she is aware that the omission of important independent variables affects the quality of the parameter estimates of the regression. She makes the following claims, assuming the omitted variables are correlated with the included variables:

Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

Regarding Claim 1 and Claim 2 made by Sawyer about the effects of omitted variables, which claims are correct?

- A) Claim 1 only.
- B) Claim 2 only.
- C) Both Claim 1 and Claim 2.

Question #13 of 60

Question ID: 691614

Use the following information to answer Questions 73 through 78.

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC).

WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24
Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50
Net Fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935

Exchange rates (AUD / USD)	2014	2015	2016
Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Smith has discovered that WMC has a small subsidiary in Ukraine. The subsidiary follows IAS accounting rules and uses FIFO inventory accounting. The Ukrainian subsidiary was acquired ten years ago and has been fully integrated into WMC's operations. WMC obtains funding for the subsidiary whenever the company finds profitable investments within Ukraine or surrounding countries. According to forecasts from economists, the Ukrainian currency is expected to depreciate relative to the U.S. dollar over the next few years. Local currency prices are forecasted to remain stable, however.

One of the managers at WMC asks Smith to analyze a third subsidiary located in India. The manager has explained that real interest rates in India over the past three years have been 2.00%, 2.50%, and 3.00%, respectively, while nominal interest rates have been 34.64%, 29.15%, and 25.66%, respectively. Smith requests more time to analyze the Indian subsidiary.

Calculate the percent change in YTC net income shown on the WMC financial statements from 2015 to 2016.

A) -52.0%.

B) -55.2%.

C) -56.9%.

Question #14 of 60

Question ID: 691615

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC). WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24
Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50
Net Fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935

Exchange rates (AUD / USD)	2014	2015	2016
Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Smith has discovered that WMC has a small subsidiary in Ukraine. The subsidiary follows IAS accounting rules and uses FIFO inventory accounting. The Ukrainian subsidiary was acquired ten years ago and has been fully integrated into WMC's operations. WMC obtains funding for the subsidiary whenever the company finds profitable investments within Ukraine or surrounding countries. According to forecasts from economists, the Ukrainian currency is expected to depreciate relative to the U.S. dollar over the next few years. Local currency prices are forecasted to remain stable, however.

One of the managers at WMC asks Smith to analyze a third subsidiary located in India. The manager has explained that real interest rates in India over the past three years have been 2.00%, 2.50%, and 3.00%, respectively, while nominal interest rates

have been 34.64%, 29.15%, and 25.66%, respectively. Smith requests more time to analyze the Indian subsidiary.

If WMC uses the temporal method, YTC's net monetary liabilities leave WMC exposed to loss in the event of:

- A) currency (AUD) depreciation.
- B) currency (AUD) appreciation.
- C) either currency depreciation or currency appreciation.

Question #15 of 60

Question ID: 691616

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC). WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24
Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50
Net Fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935

Exchange rates (AUD / USD)	2014	2015	2016
Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Smith has discovered that WMC has a small subsidiary in Ukraine. The subsidiary follows IAS accounting rules and uses FIFO

inventory accounting. The Ukrainian subsidiary was acquired ten years ago and has been fully integrated into WMC's operations. WMC obtains funding for the subsidiary whenever the company finds profitable investments within Ukraine or surrounding countries. According to forecasts from economists, the Ukrainian currency is expected to depreciate relative to the U.S. dollar over the next few years. Local currency prices are forecasted to remain stable, however.

One of the managers at WMC asks Smith to analyze a third subsidiary located in India. The manager has explained that real interest rates in India over the past three years have been 2.00%, 2.50%, and 3.00%, respectively, while nominal interest rates have been 34.64%, 29.15%, and 25.66%, respectively. Smith requests more time to analyze the Indian subsidiary.

Determine whether the translated total asset turnover for YTC for 2016 would be higher under the current rate method or under the temporal method.

- A) Temporal method.
- B) Current rate method.
- C) No difference between temporal and current rate methods.

Question #16 of 60

Question ID: 691619

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC). WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24
Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50

Net Fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935

Exchange rates (AUD / USD)	2014	2015	2016
Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Smith has discovered that WMC has a small subsidiary in Ukraine. The subsidiary follows IAS accounting rules and uses FIFO inventory accounting. The Ukrainian subsidiary was acquired ten years ago and has been fully integrated into WMC's operations. WMC obtains funding for the subsidiary whenever the company finds profitable investments within Ukraine or surrounding countries. According to forecasts from economists, the Ukrainian currency is expected to depreciate relative to the U.S. dollar over the next few years. Local currency prices are forecasted to remain stable, however.

One of the managers at WMC asks Smith to analyze a third subsidiary located in India. The manager has explained that real interest rates in India over the past three years have been 2.00%, 2.50%, and 3.00%, respectively, while nominal interest rates have been 34.64%, 29.15%, and 25.66%, respectively. Smith requests more time to analyze the Indian subsidiary.

For the period 2014-2016, WMC's annual USD revenue growth rate attributable to its Australian subsidiary is *most likely*:

- A) 1.85% lower than the local currency revenue growth rate.
- B) 3.62% higher than the local currency revenue growth rate.
- C) 3.45% lower than the local currency revenue growth rate.

Question #17 of 60

Question ID: 691617

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC). WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24
Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50
Net Fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935

Exchange rates (AUD / USD)	2014	2015	2016
Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Smith has discovered that WMC has a small subsidiary in Ukraine. The subsidiary follows IAS accounting rules and uses FIFO inventory accounting. The Ukrainian subsidiary was acquired ten years ago and has been fully integrated into WMC's operations. WMC obtains funding for the subsidiary whenever the company finds profitable investments within Ukraine or surrounding countries. According to forecasts from economists, the Ukrainian currency is expected to depreciate relative to the U.S. dollar over the next few years. Local currency prices are forecasted to remain stable, however.

One of the managers at WMC asks Smith to analyze a third subsidiary located in India. The manager has explained that real interest rates in India over the past three years have been 2.00%, 2.50%, and 3.00%, respectively, while nominal interest rates have been 34.64%, 29.15%, and 25.66%, respectively. Smith requests more time to analyze the Indian subsidiary.

Which of the following statements regarding the consolidation of WMC's Ukrainian subsidiary for the next year is *least likely* correct? Compared to the temporal method, the Ukrainian subsidiary's translated:

- A) net income before translation gains or losses would be higher using the current rate method.
- B) debt-to-equity ratio would be higher using the current rate method.
- C) gross profit margin would be lower using the current rate method.

Question #18 of 60

Question ID: 691618

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC). WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24
Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50
Net Fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935

Exchange rates (AUD / USD)	2014	2015	2016
Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Smith has discovered that WMC has a small subsidiary in Ukraine. The subsidiary follows IAS accounting rules and uses FIFO inventory accounting. The Ukrainian subsidiary was acquired ten years ago and has been fully integrated into WMC's operations. WMC obtains funding for the subsidiary whenever the company finds profitable investments within Ukraine or surrounding countries. According to forecasts from economists, the Ukrainian currency is expected to depreciate relative to the U.S. dollar over the next few years. Local currency prices are forecasted to remain stable, however.

One of the managers at WMC asks Smith to analyze a third subsidiary located in India. The manager has explained that real interest rates in India over the past three years have been 2.00%, 2.50%, and 3.00%, respectively, while nominal interest rates have been 34.64%, 29.15%, and 25.66%, respectively. Smith requests more time to analyze the Indian subsidiary.

Which of the following statements related to the consolidation of WMC's Indian subsidiary is *least likely* correct?

- A) The Indian economic environment meets the criteria to be classified as a hyperinflationary economy.
- B) IFRS would allow WMC to translate the inflation-indexed value of nonmonetary assets of the Indian subsidiary at the current exchange rate.
- C) WMC can reduce potential translation losses from the Indian subsidiary by issuing debt denominated in U.S. currency and purchasing fixed assets for the subsidiary.

Question #19 of 60

Question ID: 691613

Use the following information to answer Questions 79 through 84.

Voyager Inc., a primarily Internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the Internet.

Company Descriptions
<i>Voyager Inc.</i> is organized into two segments: Internet and newspaper publishing. The Internet segment operates Web sites that offer news, entertainment, and advertising content in text and video format. The Internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.
The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (35% of revenues), and Internet (5% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The Internet segment consists of an Internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

Voyager's acquisition of The Daily is the company's second major acquisition in its history. The previous acquisition was at the height of the merger boom in the year 2000. Voyager purchased the Dragon Company at a premium-to-net-asset value, thereby doubling the company's size. Voyager used the pooling method to account for the acquisition of Dragon; however, because of FASB changes to the Business Combination Standard, Voyager will use the acquisition method to account for the Daily acquisition.

(in millions except per share data)	Voyager Inc. (before merger)	The Daily (before merger)
Revenues	\$1,800	\$7,600
Operating income	\$415	\$998
Earnings	\$200	\$650
Assets	\$1,900	\$14,700
Debt	\$200	\$2,500
Equity	\$1,100	\$7,600
Number of shares	117.6 million	213.1 million
Stock price per share	\$68	\$35
Earnings per share	\$1.70	\$3.05
PE ratio	40.0x	11.5x

Voyager has made an all-cash offer of \$45 per share to acquire The Daily. Wall Street is skeptical about the merger. While Voyager has been growing its revenues by 40% per year, The Daily's revenue growth has been less than 2% per year. Michael

Renner, the CFO of Voyager, defends the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its Internet operations and thereby boost future earnings. Renner believes that the merged companies will have a value of \$17.5 billion.

In the past, The Daily's management has publicly stated its opposition to merging with any company, a position management still maintains. As a result of this situation, Voyager submitted its merger proposal directly to The Daily's board of directors, while the firm's CEO was on vacation. Upon returning from vacation, The Daily's CEO issued a public statement claiming that the proposed merger was unacceptable under any circumstances.

Voyager used the pooling of interests method when accounting for the 2000 acquisition of Dragon, rather than the acquisition method it would use today. Which of the following is *least likely* a feature of the pooling of interests method?

- A) Operating results for prior periods are restated as though the two firms were always combined.
- B) The pooling of interests method combines historic book values and fair values.
- C) The pooling of interests method combines historic book values.

Question #20 of 60

Question ID: 691621

Voyager Inc., a primarily Internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the Internet.

Company Descriptions
<i>Voyager Inc.</i> is organized into two segments: Internet and newspaper publishing. The Internet segment operates Web sites that offer news, entertainment, and advertising content in text and video format. The Internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.
The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (35% of revenues), and Internet (5% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The Internet segment consists of an Internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

Voyager's acquisition of The Daily is the company's second major acquisition in its history. The previous acquisition was at the height of the merger boom in the year 2000. Voyager purchased the Dragon Company at a premium-to-net-asset value,

thereby doubling the company's size. Voyager used the pooling method to account for the acquisition of Dragon; however, because of FASB changes to the Business Combination Standard, Voyager will use the acquisition method to account for the Daily acquisition.

<i>(in millions except per share data)</i>	<i>Voyager Inc. (before merger)</i>	<i>The Daily (before merger)</i>
Revenues	\$1,800	\$7,600
Operating income	\$415	\$998
Earnings	\$200	\$650
Assets	\$1,900	\$14,700
Debt	\$200	\$2,500
Equity	\$1,100	\$7,600
Number of shares	117.6 million	213.1 million
Stock price per share	\$68	\$35
Earnings per share	\$1.70	\$3.05
PE ratio	40.0x	11.5x

Voyager has made an all-cash offer of \$45 per share to acquire The Daily. Wall Street is skeptical about the merger. While Voyager has been growing its revenues by 40% per year, The Daily's revenue growth has been less than 2% per year. Michael Renner, the CFO of Voyager, defends the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its Internet operations and thereby boost future earnings. Renner believes that the merged companies will have a value of \$17.5 billion.

In the past, The Daily's management has publicly stated its opposition to merging with any company, a position management still maintains. As a result of this situation, Voyager submitted its merger proposal directly to The Daily's board of directors, while the firm's CEO was on vacation. Upon returning from vacation, The Daily's CEO issued a public statement claiming that the proposed merger was unacceptable under any circumstances.

Based on Renner's comments defending Voyager's acquisition of The Daily, indicate whether his comments about net income and elimination of inefficiencies are *most likely* correct.

- A) Only Renner's comment that unused tax losses will immediately translate into higher net income is correct.
- B) Only Renner's comment that the elimination of inefficiencies within the Internet operations will create additional value is correct.
- C) Both comments are correct.

Question #21 of 60

Question ID: 692687

Voyager Inc., a primarily Internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the Internet.

Company Descriptions

Voyager Inc. is organized into two segments: Internet and newspaper publishing. The Internet segment operates Web sites that offer news, entertainment, and advertising content in text and video format. The Internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.

The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (35% of revenues), and Internet (5% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The Internet segment consists of an Internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

Voyager's acquisition of The Daily is the company's second major acquisition in its history. The previous acquisition was at the height of the merger boom in the year 2000. Voyager purchased the Dragon Company at a premium-to-net-asset value, thereby doubling the company's size. Voyager used the pooling method to account for the acquisition of Dragon; however, because of FASB changes to the Business Combination Standard, Voyager will use the acquisition method to account for the Daily acquisition.

<i>(in millions except per share data)</i>	<i>Voyager Inc. (before merger)</i>	<i>The Daily (before merger)</i>
Revenues	\$1,800	\$7,600
Operating income	\$415	\$998
Earnings	\$200	\$650
Assets	\$1,900	\$14,700
Debt	\$200	\$2,500
Equity	\$1,100	\$7,600
Number of shares	117.6 million	213.1 million
Stock price per share	\$68	\$35
Earnings per share	\$1.70	\$3.05
PE ratio	40.0x	11.5x

Voyager has made an all-cash offer of \$45 per share to acquire The Daily. Wall Street is skeptical about the merger. While Voyager has been growing its revenues by 40% per year, The Daily's revenue growth has been less than 2% per year. Michael Renner, the CFO of Voyager, defends the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its Internet operations and thereby boost future earnings. Renner believes that the merged companies will have a value of \$17.5 billion.

In the past, The Daily's management has publicly stated its opposition to merging with any company, a position management still maintains. As a result of this situation, Voyager submitted its merger proposal directly to The Daily's board of directors,

while the firm's CEO was on vacation. Upon returning from vacation, The Daily's CEO issued a public statement claiming that the proposed merger was unacceptable under any circumstances.

Assuming that Renner's estimate of the value of the merged companies is correct, calculate the acquirer's gain from the merger.

- A) \$7,910.5 million.
- B) \$9,503.2 million.
- C) \$11,634.2 million.

Question #22 of 60

Question ID: 691625

Voyager Inc., a primarily Internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the Internet.

Company Descriptions
<i>Voyager Inc.</i> is organized into two segments: Internet and newspaper publishing. The Internet segment operates Web sites that offer news, entertainment, and advertising content in text and video format. The Internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.
The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (35% of revenues), and Internet (5% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The Internet segment consists of an Internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

Voyager's acquisition of The Daily is the company's second major acquisition in its history. The previous acquisition was at the height of the merger boom in the year 2000. Voyager purchased the Dragon Company at a premium-to-net-asset value, thereby doubling the company's size. Voyager used the pooling method to account for the acquisition of Dragon; however, because of FASB changes to the Business Combination Standard, Voyager will use the acquisition method to account for the Daily acquisition.

(in millions except per share data)	Voyager Inc. (before merger)	The Daily (before merger)
Revenues	\$1,800	\$7,600
Operating income	\$415	\$998

Earnings	\$200	\$650
Assets	\$1,900	\$14,700
Debt	\$200	\$2,500
Equity	\$1,100	\$7,600
Number of shares	117.6 million	213.1 million
Stock price per share	\$68	\$35
Earnings per share	\$1.70	\$3.05
PE ratio	40.0x	11.5x

Voyager has made an all-cash offer of \$45 per share to acquire The Daily. Wall Street is skeptical about the merger. While Voyager has been growing its revenues by 40% per year, The Daily's revenue growth has been less than 2% per year. Michael Renner, the CFO of Voyager, defends the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its Internet operations and thereby boost future earnings. Renner believes that the merged companies will have a value of \$17.5 billion.

In the past, The Daily's management has publicly stated its opposition to merging with any company, a position management still maintains. As a result of this situation, Voyager submitted its merger proposal directly to The Daily's board of directors, while the firm's CEO was on vacation. Upon returning from vacation, The Daily's CEO issued a public statement claiming that the proposed merger was unacceptable under any circumstances.

Assume that Voyager offers 63 million shares of its stock, rather than cash, to acquire The Daily. The share price of the combined company is *closest* to:

- A) \$145 per share.
- B) \$150 per share.
- C) \$155 per share.

Question #23 of 60

Question ID: 691623

Voyager Inc., a primarily Internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the Internet.

Company Descriptions

Voyager Inc. is organized into two segments: Internet and newspaper publishing. The Internet segment operates Web sites that offer news, entertainment, and advertising content in text and video format. The Internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.

The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (35% of revenues), and Internet (5% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The Internet segment consists of an Internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

Voyager's acquisition of The Daily is the company's second major acquisition in its history. The previous acquisition was at the height of the merger boom in the year 2000. Voyager purchased the Dragon Company at a premium-to-net-asset value, thereby doubling the company's size. Voyager used the pooling method to account for the acquisition of Dragon; however, because of FASB changes to the Business Combination Standard, Voyager will use the acquisition method to account for the Daily acquisition.

<i>(in millions except per share data)</i>	<i>Voyager Inc. (before merger)</i>	<i>The Daily (before merger)</i>
Revenues	\$1,800	\$7,600
Operating income	\$415	\$998
Earnings	\$200	\$650
Assets	\$1,900	\$14,700
Debt	\$200	\$2,500
Equity	\$1,100	\$7,600
Number of shares	117.6 million	213.1 million
Stock price per share	\$68	\$35
Earnings per share	\$1.70	\$3.05
PE ratio	40.0x	11.5x

Voyager has made an all-cash offer of \$45 per share to acquire The Daily. Wall Street is skeptical about the merger. While Voyager has been growing its revenues by 40% per year, The Daily's revenue growth has been less than 2% per year. Michael Renner, the CFO of Voyager, defends the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its Internet operations and thereby boost future earnings. Renner believes that the merged companies will have a value of \$17.5 billion.

In the past, The Daily's management has publicly stated its opposition to merging with any company, a position management still maintains. As a result of this situation, Voyager submitted its merger proposal directly to The Daily's board of directors, while the firm's CEO was on vacation. Upon returning from vacation, The Daily's CEO issued a public statement claiming that the proposed merger was unacceptable under any circumstances.

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The management of The Daily is not pleased with the \$45 per share offering price. Which of the following is the *most likely* takeover defense The Daily would consider in an effort to stop the acquisition?

- A)** Immediately amend The Daily bylaws to establish a staggered board.
- B)** File suit against Voyager for antitrust violations.
- C)** Restrict the voting rights of shareholders owning more than 10% of The Daily stock.

Question #24 of 60

Question ID: 691622

Voyager Inc., a primarily Internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the Internet.

Company Descriptions
<i>Voyager Inc.</i> is organized into two segments: Internet and newspaper publishing. The Internet segment operates Web sites that offer news, entertainment, and advertising content in text and video format. The Internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.
The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (35% of revenues), and Internet (5% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The Internet segment consists of an Internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

Voyager's acquisition of The Daily is the company's second major acquisition in its history. The previous acquisition was at the height of the merger boom in the year 2000. Voyager purchased the Dragon Company at a premium-to-net-asset value, thereby doubling the company's size. Voyager used the pooling method to account for the acquisition of Dragon; however, because of FASB changes to the Business Combination Standard, Voyager will use the acquisition method to account for the Daily acquisition.

<i>(in millions except per share data)</i>	<i>Voyager Inc. (before merger)</i>	<i>The Daily (before merger)</i>
Revenues	\$1,800	\$7,600
Operating income	\$415	\$998
Earnings	\$200	\$650
Assets	\$1,900	\$14,700
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Earnings per share	\$1.70	\$3.05
PE ratio	40.0x	11.5x

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<https://www.kaplanlearn.com/education/test/print/6379299?testId=32037770>

Voyager has been growing its revenues by 40% per year, The Daily's revenue growth has been less than 2% per year. Michael Renner, the CFO of Voyager, defends the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its Internet operations and thereby boost future earnings. Renner believes that the merged companies will have a value of \$17.5 billion.

In the past, The Daily's management has publicly stated its opposition to merging with any company, a position management still maintains. As a result of this situation, Voyager submitted its merger proposal directly to The Daily's board of directors, while the firm's CEO was on vacation. Upon returning from vacation, The Daily's CEO issued a public statement claiming that the proposed merger was unacceptable under any circumstances.

Which of the following *best* characterizes Voyager's proposal to merge with The Daily?

- A) Bear hug.
- B) Proxy fight.
- C) White knight.

Question #25 of 60

Question ID: 691626

Use the following information to answer Questions 85 through 90.

Zi Wang is a senior buy-side equity analyst with Shandong Securities. Wang must review the work of several junior colleagues before investment recommendations go to the Shandong portfolio managers. One recommendation from a junior analyst is given in Exhibit 1.

Exhibit 1

Summary of investment characteristics for Aussie Shipping Company

Current dividend	AUD 2.20 (AUD is Australian dollar)
Dividend growth rate	5%, perpetual
Equity beta	1.20
Risk-free rate	5.2%
Equity risk premium	4.5%
Current stock price	AUD 33.50
Estimated intrinsic value	AUD 41.25
Investment recommendation	Buy

This same junior analyst e-mailed Wang, saying "I'm in a meeting and hate to bother you. I don't have my calculator or computer with me. We have a British stock with a current £4.00 dividend that is expected to grow at 40% per year for two years and then forever after at 6%. If we assume a required return of 12%, what is the value of this stock?"

In a few minutes, Wang e-mails him back: "The British stock is worth £110.42."

The junior analyst sends back a second e-mail. "Thanks. If we can buy this stock for £90, what rate of return would we get?"

Assume the same dividend pattern as in my first e-mail."

Wang replies to the second e-mail: "I used trial and error and found an expected rate of return for the British stock of 12%."

One of Shandong's portfolio managers asks Wang to clarify the PVGO (present value of growth opportunities) concept for him. Wang tells him, "PVGO is the part of a stock's total value that comes from future growth opportunities. PVGO is conventionally estimated as the market value per share minus the book value per share."

The Shandong portfolio manager quickly follows up with two more requests. He says, "I need a couple of favors. First, could you describe the sustainable growth rate concept for us? We've been arguing about it among ourselves. And, second, could you review some highlighted phrases from a research report we received from one of our investment bankers? We aren't sure that the analyst who wrote this report is very competent." The highlighted phrases are:

- Phrase 1: When calculating the justified P/E ratios based on a constant growth model like the Gordon model, the forward P/E should be greater than the trailing P/E.
- Phrase 2: A free cash flow approach might be preferable when the company's cash flows differ substantially from dividends or when the investor takes a control perspective.
- Phrase 3: When the required rate of return increases, the value of a share of stock should decrease even if the stock's dividend has a negative growth rate.

Upon review, should Wang accept the estimated intrinsic value and investment recommendation for Aussie Shipping?

- A) Yes.
- B) No. The intrinsic value is AUD 39.29, although the recommendation is still a "buy."
- C) No. The intrinsic value is AUD 31.67, and the recommendation should be "do not buy."

Question #26 of 60

Question ID: 691629

Zi Wang is a senior buy-side equity analyst with Shandong Securities. Wang must review the work of several junior colleagues before investment recommendations go to the Shandong portfolio managers. One recommendation from a junior analyst is given in Exhibit 1.

Exhibit 1

Summary of investment characteristics for Aussie Shipping Company

Current dividend	AUD 2.20 (AUD is Australian dollar)
Dividend growth rate	5%, perpetual
Equity beta	1.20
Risk-free rate	5.2%
Equity risk premium	4.5%
Current stock price	AUD 33.50
Estimated intrinsic value	AUD 41.25
Investment recommendation	Buy

This same junior analyst e-mailed Wang, saying "I'm in a meeting and hate to bother you. I don't have my calculator or computer with me. We have a British stock with a current £4.00 dividend that is expected to grow at 40% per year for two years and then forever after at 6%. If we assume a required return of 12%, what is the value of this stock?"

In a few minutes, Wang e-mails him back: "The British stock is worth £110.42."

The junior analyst sends back a second e-mail. "Thanks. If we can buy this stock for £90, what rate of return would we get? Assume the same dividend pattern as in my first e-mail."

Wang replies to the second e-mail: "I used trial and error and found an expected rate of return for the British stock of 12%."

One of Shandong's portfolio managers asks Wang to clarify the PVGO (present value of growth opportunities) concept for him. Wang tells him, "PVGO is the part of a stock's total value that comes from future growth opportunities. PVGO is conventionally estimated as the market value per share minus the book value per share."

The Shandong portfolio manager quickly follows up with two more requests. He says, "I need a couple of favors. First, could you describe the sustainable growth rate concept for us? We've been arguing about it among ourselves. And, second, could you review some highlighted phrases from a research report we received from one of our investment bankers? We aren't sure that the analyst who wrote this report is very competent." The highlighted phrases are:

Phrase 1: When calculating the justified P/E ratios based on a constant growth model like the Gordon model, the forward P/E should be greater than the trailing P/E.

Phrase 2: A free cash flow approach might be preferable when the company's cash flows differ substantially from dividends or when the investor takes a control perspective.

Phrase 3: When the required rate of return increases, the value of a share of stock should decrease even if the stock's dividend has a negative growth rate.

Is Wang's estimate of the British stock price correct?

- A) Yes.
- B) No. The value is £86.90.
- C) No. The value is £121.67.

Question #27 of 60

Question ID: 691630

Zi Wang is a senior buy-side equity analyst with Shandong Securities. Wang must review the work of several junior colleagues before investment recommendations go to the Shandong portfolio managers. One recommendation from a junior analyst is given in Exhibit 1.

Exhibit 1

Summary of investment characteristics for Aussie Shipping Company

Current dividend	AUD 2.20 (AUD is Australian dollar)
Dividend growth rate	5%, perpetual
Equity beta	1.20

Equity beta	1.20
Risk-free rate	5.2%
Equity risk premium	4.5%
Current stock price	AUD 33.50
Estimated intrinsic value	AUD 41.25
Investment recommendation	Buy

This same junior analyst e-mailed Wang, saying "I'm in a meeting and hate to bother you. I don't have my calculator or computer with me. We have a British stock with a current £4.00 dividend that is expected to grow at 40% per year for two years and then forever after at 6%. If we assume a required return of 12%, what is the value of this stock?"

In a few minutes, Wang e-mails him back: "The British stock is worth £110.42."

The junior analyst sends back a second e-mail. "Thanks. If we can buy this stock for £90, what rate of return would we get? Assume the same dividend pattern as in my first e-mail."

Wang replies to the second e-mail: "I used trial and error and found an expected rate of return for the British stock of 12%."

One of Shandong's portfolio managers asks Wang to clarify the PVGO (present value of growth opportunities) concept for him. Wang tells him, "PVGO is the part of a stock's total value that comes from future growth opportunities. PVGO is conventionally estimated as the market value per share minus the book value per share."

The Shandong portfolio manager quickly follows up with two more requests. He says, "I need a couple of favors. First, could you describe the sustainable growth rate concept for us? We've been arguing about it among ourselves. And, second, could you review some highlighted phrases from a research report we received from one of our investment bankers? We aren't sure that the analyst who wrote this report is very competent." The highlighted phrases are:

- Phrase 1: When calculating the justified P/E ratios based on a constant growth model like the Gordon model, the forward P/E should be greater than the trailing P/E.
- Phrase 2: A free cash flow approach might be preferable when the company's cash flows differ substantially from dividends or when the investor takes a control perspective.
- Phrase 3: When the required rate of return increases, the value of a share of stock should decrease even if the stock's dividend has a negative growth rate.

Is Wang's estimate of the expected rate of return for the British stock approximately correct?

- A) Yes.
- B) No. The rate of return is closer to 13%.
- C) No. The rate of return is closer to 14%.

Question #28 of 60

Question ID: 691627

Zi Wang is a senior buy-side equity analyst with Shandong Securities. Wang must review the work of several junior colleagues before investment recommendations go to the Shandong portfolio managers. One recommendation from a junior analyst is given in Exhibit 4.

Exhibit 1

Summary of investment characteristics for Aussie Shipping Company

Current dividend	AUD 2.20 (AUD is Australian dollar)
Dividend growth rate	5%, perpetual
Equity beta	1.20
Risk-free rate	5.2%
Equity risk premium	4.5%
Current stock price	AUD 33.50
Estimated intrinsic value	AUD 41.25
Investment recommendation	Buy

This same junior analyst e-mailed Wang, saying "I'm in a meeting and hate to bother you. I don't have my calculator or computer with me. We have a British stock with a current £4.00 dividend that is expected to grow at 40% per year for two years and then forever after at 6%. If we assume a required return of 12%, what is the value of this stock?"

In a few minutes, Wang e-mails him back: "The British stock is worth £110.42."

The junior analyst sends back a second e-mail. "Thanks. If we can buy this stock for £90, what rate of return would we get? Assume the same dividend pattern as in my first e-mail."

Wang replies to the second e-mail: "I used trial and error and found an expected rate of return for the British stock of 12%."

One of Shandong's portfolio managers asks Wang to clarify the PVGO (present value of growth opportunities) concept for him. Wang tells him, "PVGO is the part of a stock's total value that comes from future growth opportunities. PVGO is conventionally estimated as the market value per share minus the book value per share."

The Shandong portfolio manager quickly follows up with two more requests. He says, "I need a couple of favors. First, could you describe the sustainable growth rate concept for us? We've been arguing about it among ourselves. And, second, could you review some highlighted phrases from a research report we received from one of our investment bankers? We aren't sure that the analyst who wrote this report is very competent." The highlighted phrases are:

- Phrase 1: When calculating the justified P/E ratios based on a constant growth model like the Gordon model, the forward P/E should be greater than the trailing P/E.
- Phrase 2: A free cash flow approach might be preferable when the company's cash flows differ substantially from dividends or when the investor takes a control perspective.
- Phrase 3: When the required rate of return increases, the value of a share of stock should decrease even if the stock's dividend has a negative growth rate.

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Is Wang's description of PVGO *most likely* correct?

- A)** Yes.
- B)** No. PVGO is the difference between the price and the value of assets in place. The value of assets in place is estimated by dividing dividends per share by the required rate of return.

- C)** No. PVGO is the difference between the price and the value of assets in place. The

- c) No. PVGO is the difference between the price and the value of assets in place. The value of assets in place is estimated by dividing earnings per share by the required rate of return.

Question #29 of 60

Question ID: 691631

Zi Wang is a senior buy-side equity analyst with Shandong Securities. Wang must review the work of several junior colleagues before investment recommendations go to the Shandong portfolio managers. One recommendation from a junior analyst is given in Exhibit 1.

Exhibit 1

Summary of investment characteristics for Aussie Shipping Company

Current dividend	AUD 2.20 (AUD is Australian dollar)
Dividend growth rate	5%, perpetual
Equity beta	1.20
Risk-free rate	5.2%
Equity risk premium	4.5%
Current stock price	AUD 33.50
Estimated intrinsic value	AUD 41.25
Investment recommendation	Buy

This same junior analyst e-mailed Wang, saying "I'm in a meeting and hate to bother you. I don't have my calculator or computer with me. We have a British stock with a current £4.00 dividend that is expected to grow at 40% per year for two years and then forever after at 6%. If we assume a required return of 12%, what is the value of this stock?"

In a few minutes, Wang e-mails him back: "The British stock is worth £110.42."

The junior analyst sends back a second e-mail. "Thanks. If we can buy this stock for £90, what rate of return would we get? Assume the same dividend pattern as in my first e-mail."

Wang replies to the second e-mail: "I used trial and error and found an expected rate of return for the British stock of 12%."

One of Shandong's portfolio managers asks Wang to clarify the PVGO (present value of growth opportunities) concept for him. Wang tells him, "PVGO is the part of a stock's total value that comes from future growth opportunities. PVGO is conventionally estimated as the market value per share minus the book value per share."

The Shandong portfolio manager quickly follows up with two more requests. He says, "I need a couple of favors. First, could you describe the sustainable growth rate concept for us? We've been arguing about it among ourselves. And, second, could you review some highlighted phrases from a research report we received from one of our investment bankers? We aren't sure that the analyst who wrote this report is very competent." The highlighted phrases are:

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Phrase 2: A free cash flow approach might be preferable when the company's cash flows differ substantially from dividends or when the investor takes a control perspective.

Phrase 3: When the required rate of return increases, the value of a share of stock should decrease even if the stock's

dividend has a negative growth rate.

How should Wang describe sustainable growth? "The sustainable growth rate is the rate of dividend and earnings growth that can be sustained for a given return on equity, assuming that:

- A) no additional external capital is raised."
 - B) additional debt capital may be raised, keeping the capital structure constant."
 - C) additional equity capital may be raised proportional to the amount of earnings retained."
-

Question #30 of 60

Question ID: 691628

Zi Wang is a senior buy-side equity analyst with Shandong Securities. Wang must review the work of several junior colleagues before investment recommendations go to the Shandong portfolio managers. One recommendation from a junior analyst is given in Exhibit 1.

Exhibit 1

Summary of investment characteristics for Aussie Shipping Company

Current dividend	AUD 2.20 (AUD is Australian dollar)
Dividend growth rate	5%, perpetual
Equity beta	1.20
Risk-free rate	5.2%
Equity risk premium	4.5%
Current stock price	AUD 33.50
Estimated intrinsic value	AUD 41.25
Investment recommendation	Buy

This same junior analyst e-mailed Wang, saying "I'm in a meeting and hate to bother you. I don't have my calculator or computer with me. We have a British stock with a current £4.00 dividend that is expected to grow at 40% per year for two years and then forever after at 6%. If we assume a required return of 12%, what is the value of this stock?"

In a few minutes, Wang e-mails him back: "The British stock is worth £110.42."

The junior analyst sends back a second e-mail. "Thanks. If we can buy this stock for £90, what rate of return would we get? Assume the same dividend pattern as in my first e-mail."

Wang replies to the second e-mail: "I used trial and error and found an expected rate of return for the British stock of 12%."

One of Shandong's portfolio managers asks Wang to clarify the PVGO (present value of growth opportunities) concept for him. Wang tells him, "PVGO is the part of a stock's total value that comes from future growth opportunities. PVGO is conventionally estimated as the market value per share minus the book value per share."

The Shandong portfolio manager quickly follows up with two more requests. He says, "I need a couple of favors. First, could

you describe the sustainable growth rate concept for us? We've been arguing about it among ourselves. And, second, could you review some highlighted phrases from a research report we received from one of our investment bankers? We aren't sure that the analyst who wrote this report is very competent." The highlighted phrases are:

- Phrase 1: When calculating the justified P/E ratios based on a constant growth model like the Gordon model, the forward P/E should be greater than the trailing P/E.
- Phrase 2: A free cash flow approach might be preferable when the company's cash flows differ substantially from dividends or when the investor takes a control perspective.
- Phrase 3: When the required rate of return increases, the value of a share of stock should decrease even if the stock's dividend has a negative growth rate.

Which of the three phrases in the investment banker's report is *least likely* to be correct?

- A) Phrase 1.
- B) Phrase 2.
- C) Phrase 3.

Question #31 of 60

Question ID: 691636

Use the following information to answer Questions 91 through 96.

Yummy Doughnuts (YD) sells a variety of doughnuts and other related items through both company-owned locations and franchise locations. YD has experienced significant growth over the past five years. However, barriers to entry are low and competition is increasing.

Linda Haas, CFA, follows YD for Gibraltar Capital. Gibraltar Capital prides itself on its thorough fundamental analysis of investment opportunities. The company uses a bottom-up approach to the investment process. Haas's security selection process utilizes residual income models to determine a stock's intrinsic value. Haas obtains YD's 2008 financial statements shown in Exhibit 1. In addition, Haas provides supporting information about YD's financials and other related material found in Exhibit 2.

Exhibit 1: Yummy Doughnuts's 2008 Income Statement and Balance Sheet

<i>In millions, except for per share items</i>	<i>2008</i>
Revenue	\$300
Cost of goods sold	\$205
SG&A	\$40
Depreciation expense	\$6
Income from operations	\$49
Interest expense	\$1
Pretax income	\$48
Income tax (40% tax rate)	\$19
Net income	\$29

Shares outstanding	18.6
EPS	\$1.56

<i>In millions</i>	<i>2008</i>		<i>2008</i>
Assets		Liabilities and equity	
Cash	\$15	Accounts payable	\$12
Accounts receivable	\$27	Accrued expenses	\$26
Inventory	\$16	Current liabilities	\$38
Current assets	\$58		
Property and equipment	\$113	Total long-term debt (7% coupon, at par value)	\$12
Long-term investments	\$10	Equity	\$131
Total assets	\$181	Total liabilities & equity	\$181

Exhibit 2: Additional Information

- YD uses the FIFO method of inventory valuation.
- 2008 cash operating taxes equal \$15 million. This amount includes all appropriate tax adjustments. 2008 NOPAT was estimated to be \$42 million.
- Haas believes that YD will have a 17% ROE and a 10% long-term growth rate over the foreseeable future.
- Haas estimates YD's cost of equity to be 15.0%
- YD expects annual capital expenditures to remain at about \$37 million.
- YD's stock currently trades at \$15.50 per share.
- YD's bonds are currently trading at par value.
- YD's total adjusted capital base was \$200 million at the end of 2007.

Haas makes the following statements during her YD presentation to the investment committee:

Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 2: The residual income model states that if YD's ROE equals its equity cost of capital, then YD's intrinsic value will equal its book value per share.

For this question only, a careful evaluation of YD's financial statement reveals that the decrease in value of available-for-sale securities has been reported in the other comprehensive income (OCI) section of stockholder's equity. The *most likely* impact on the computation of residual income due to accounting for available-for-sale securities would be:

- A) a reduction in residual income due to lower ROE.
- B) a reduction in residual income due to lower ROE and book value.
- C) an increase in residual income due to higher ROE.

Yummy Doughnuts (YD) sells a variety of doughnuts and other related items through both company-owned locations and franchise locations. YD has experienced significant growth over the past five years. However, barriers to entry are low and competition is increasing.

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Exhibit 1: Yummy Doughnuts's 2008 Income Statement and Balance Sheet

<i>In millions, except for per share items</i>	<i>2008</i>
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Cost of goods sold	\$205
SG&A	\$40
Depreciation expense	\$6
Income from operations	\$49
Interest expense	\$1
Pretax income	\$48
Income tax (40% tax rate)	\$19
Net income	\$29
Shares outstanding	18.6
EPS	\$1.56

<i>In millions</i>	<i>2008</i>		<i>2008</i>
Assets		Liabilities and equity	
Cash	\$15	Accounts payable	\$12
Accounts receivable	\$27	Accrued expenses	\$26
Inventory	\$16	Current liabilities	\$38
Current assets	\$58		
Property and equipment	\$113	Total long-term debt (7% coupon, at par value)	\$12
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- YD expects annual capital expenditures to remain at about \$37 million.
- YD's stock currently trades at \$15.50 per share.
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Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 2: The residual income model states that if YD's ROE equals its equity cost of capital, then YD's intrinsic value will equal its book value per share.

Based on Exhibits 1 and 2, YD's weighted average cost of capital (WACC) is *closest* to:

- A) 12%.
- B) 13%.
- C) 15%.

Question #33 of 60

Question ID: 691632

Yummy Doughnuts (YD) sells a variety of doughnuts and other related items through both company-owned locations and franchise locations. YD has experienced significant growth over the past five years. However, barriers to entry are low and competition is increasing.

Linda Haas, CFA, follows YD for Gibraltar Capital. Gibraltar Capital prides itself on its thorough fundamental analysis of investment opportunities. The company uses a bottom-up approach to the investment process. Haas's security selection process utilizes residual income models to determine a stock's intrinsic value. Haas obtains YD's 2008 financial statements shown in Exhibit 1. In addition, Haas provides supporting information about YD's financials and other related material found in Exhibit 2.

Exhibit 1: Yummy Doughnuts's 2008 Income Statement and Balance Sheet

<i>In millions, except for per share items</i>	<i>2008</i>
Revenue	\$300
Cost of goods sold	\$205
SG&A	\$40
Depreciation expense	\$6
Income from operations	\$49
Interest expense	\$1
Pretax income	\$48
Income tax (40% tax rate)	\$19
Net income	\$29
Shares outstanding	18.6
EPS	\$1.56

In millions

2008

2008

	2008		2008
Assets		Liabilities and equity	
Cash	\$15	Accounts payable	\$12
Accounts receivable	\$27	Accrued expenses	\$26
Inventory	\$16	Current liabilities	\$38
Current assets	\$58		
Property and equipment	\$113	Total long-term debt (7% coupon, at par value)	\$12
Long-term investments	\$10	Equity	\$131
Total assets	\$181	Total liabilities & equity	\$181

Exhibit 2: Additional Information

- YD uses the FIFO method of inventory valuation.
- 2008 cash operating taxes equal \$15 million. This amount includes all appropriate tax adjustments. 2008 NOPAT was estimated to be \$42 million.
- Haas believes that YD will have a 17% ROE and a 10% long-term growth rate over the foreseeable future.
- Haas estimates YD's cost of equity to be 15.0%
- YD expects annual capital expenditures to remain at about \$37 million.
- YD's stock currently trades at \$15.50 per share.
- YD's bonds are currently trading at par value.
- YD's total adjusted capital base was \$200 million at the end of 2007.

Haas makes the following statements during her YD presentation to the investment committee:

Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 2: The residual income model states that if YD's ROE equals its equity cost of capital, then YD's intrinsic value will equal its book value per share.

For this question only, assume a weighted average cost of capital (WACC) of 12.0%. YD's economic value added (EVA) during the year 2008 is *closest* to:

- A) \$6 million.
- B) \$18 million.
- C) \$24 million.

Question #34 of 60

Question ID: 691634

Yummy Doughnuts (YD) sells a variety of doughnuts and other related items through both company-owned locations and franchise locations. YD has experienced significant growth over the past five years. However, barriers to entry are low and competition is increasing.

Linda Haas, CFA, follows YD for Gibraltar Capital. Gibraltar Capital prides itself on its thorough fundamental analysis of investment opportunities. The company uses a bottom-up approach to the investment process. Haas's security selection process utilizes residual income models to determine a stock's intrinsic value. Haas obtains YD's 2008 financial statements shown in Exhibit 1. In addition, Haas provides supporting information about YD's financials and other related material found in Exhibit 2.

Exhibit 1: Yummy Doughnuts's 2008 Income Statement and Balance Sheet

<i>In millions, except for per share items</i>		2008
Revenue		\$300
Cost of goods sold		\$205
SG&A		\$40
Depreciation expense		\$6
Income from operations		\$49
Interest expense		\$1
Pretax income		\$48
Income tax (40% tax rate)		\$19
Net income		\$29
Shares outstanding		18.6
EPS		\$1.56

<i>In millions</i>	2008		2008
Assets		Liabilities and equity	
Cash	\$15	Accounts payable	\$12
Accounts receivable	\$27	Accrued expenses	\$26
Inventory	\$16	Current liabilities	\$38
Current assets	\$58		
Property and equipment	\$113	Total long-term debt (7% coupon, at par value)	\$12
Long-term investments	\$10	Equity	\$131
Total assets	\$181	Total liabilities & equity	\$181

Exhibit 2: Additional Information

- YD uses the FIFO method of inventory valuation.
- 2008 cash operating taxes equal \$15 million. This amount includes all appropriate tax adjustments. 2008 NOPAT was estimated to be \$42 million.
- Haas believes that YD will have a 17% ROE and a 10% long-term growth rate over the foreseeable future.
- Haas estimates YD's cost of equity to be 15.0%
- YD expects annual capital expenditures to remain at about \$37 million.
- YD's stock currently trades at \$15.50 per share.
- YD's bonds are currently trading at par value.
- YD's total adjusted capital base was \$200 million at the end of 2007.

Haas makes the following statements during her YD presentation to the investment committee:

Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 2: The residual income model states that if YD's ROE equals its equity cost of capital, then YD's intrinsic value will equal its book value per share.

Based on Exhibit 1, Exhibit 2, and the single-stage residual income model, YD's intrinsic value is *closest* to:

- A) \$8.00 per share.
- B) \$10.00 per share.
- C) \$12.00 per share.

Question #35 of 60

Question ID: 691635

Yummy Doughnuts (YD) sells a variety of doughnuts and other related items through both company-owned locations and franchise locations. YD has experienced significant growth over the past five years. However, barriers to entry are low and competition is increasing.

Linda Haas, CFA, follows YD for Gibraltar Capital. Gibraltar Capital prides itself on its thorough fundamental analysis of investment opportunities. The company uses a bottom-up approach to the investment process. Haas's security selection process utilizes residual income models to determine a stock's intrinsic value. Haas obtains YD's 2008 financial statements shown in Exhibit 1. In addition, Haas provides supporting information about YD's financials and other related material found in Exhibit 2.

Exhibit 1: Yummy Doughnuts's 2008 Income Statement and Balance Sheet

<i>In millions, except for per share items</i>	<i>2008</i>
Revenue	\$300
Cost of goods sold	\$205
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Interest expense	\$1
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Net income	\$29
Shares outstanding	18.6
EPS	\$1.56

<i>In millions</i>	<i>2008</i>		<i>2008</i>
Assets		Liabilities and equity	
Cash	\$15	Accounts payable	\$12
Accounts receivable	\$27	Accrued expenses	\$26
Inventory	\$16	Current liabilities	\$38

Inventory	\$10	Current liabilities	\$00
Current assets	\$58		
Property and equipment	\$113	Total long-term debt (7% coupon, at par value)	\$12
Long-term investments	\$10	Equity	\$131
Total assets	\$181	Total liabilities & equity	\$181

Exhibit 2: Additional Information

- YD uses the FIFO method of inventory valuation.
- 2008 cash operating taxes equal \$15 million. This amount includes all appropriate tax adjustments. 2008 NOPAT was estimated to be \$42 million.
- Haas believes that YD will have a 17% ROE and a 10% long-term growth rate over the foreseeable future.
- Haas estimates YD's cost of equity to be 15.0%
- YD expects annual capital expenditures to remain at about \$37 million.
- YD's stock currently trades at \$15.50 per share.
- YD's bonds are currently trading at par value.
- YD's total adjusted capital base was \$200 million at the end of 2007.

Haas makes the following statements during her YD presentation to the investment committee:

Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 2: The residual income model states that if YD's ROE equals its equity cost of capital, then YD's intrinsic value will equal its book value per share.

Haas notes that the multi-stage residual equity income model captures more detail in calculating YD's intrinsic value. An assumption of the model is that ROE fades to the cost of equity over time, which is known as a persistence factor (varying from 0 to 1). Identify which characteristic indicates a higher persistence of abnormal earnings.

- A) Low dividend payout.
- B) Low price-to-earnings ratio.
- C) High dividend yield.

Question #36 of 60

Question ID: 691633

Yummy Doughnuts (YD) sells a variety of doughnuts and other related items through both company-owned locations and franchise locations. YD has experienced significant growth over the past five years. However, barriers to entry are low and competition is increasing.

Linda Haas, CFA, follows YD for Gibraltar Capital. Gibraltar Capital prides itself on its thorough fundamental analysis of investment opportunities. The company uses a bottom-up approach to the investment process. Haas's security selection process utilizes residual income models to determine a stock's intrinsic value. Haas obtains YD's 2008 financial statements

shown in Exhibit 1. In addition, Haas provides supporting information about YD's financials and other related material found in Exhibit 2.

Exhibit 1: Yummy Doughnuts's 2008 Income Statement and Balance Sheet

<i>In millions, except for per share items</i>	<i>2008</i>
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Income from operations	\$49
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Net income	\$29
Shares outstanding	18.6
EPS	\$1.56

<i>In millions</i>	<i>2008</i>		<i>2008</i>
Assets		Liabilities and equity	
Cash	\$15	Accounts payable	\$12
Accounts receivable	\$27	Accrued expenses	\$26
Inventory	\$16	Current liabilities	\$38
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Property and equipment	\$113	Total long-term debt (7% coupon, at par value)	\$12
Long-term investments	\$10	Equity	\$131
Total assets	\$181	Total liabilities & equity	\$181

Exhibit 2: Additional Information

- YD uses the FIFO method of inventory valuation.
- 2008 cash operating taxes equal \$15 million. This amount includes all appropriate tax adjustments. 2008 NOPAT was estimated to be \$42 million.
- Haas believes that YD will have a 17% ROE and a 10% long-term growth rate over the foreseeable future.
- Haas estimates YD's cost of equity to be 15.0%
- YD expects annual capital expenditures to remain at about \$37 million.
- YD's stock currently trades at \$15.50 per share.
- YD's bonds are currently trading at par value.
- YD's total adjusted capital base was \$200 million at the end of 2007.

Haas makes the following statements during her YD presentation to the investment committee:

Statement 1: Based on ROE mean reversion, YD's continuing residual income is assumed to decline to zero over time.

Statement 2: The residual income model states that if YD's ROE equals its equity cost of capital, then YD's intrinsic value will equal its book value per share.

equal its book value per share.

Haas makes a statement about an assumption concerning residual income (Statement 1) and the residual income model (Statement 2). Which of the statements is correct?

- A) Only Statement 1 is correct.
- B) Only Statement 2 is correct.
- C) Both Statements 1 and 2 are correct.

Question #37 of 60

Question ID: 691644

Use the following information to answer Questions 97 through 102.

Michael Thomas, CFA, is a fixed-income portfolio manager for TFC Investments. As part of his portfolio strategy for the Prosperity Fund, Thomas seeks out bonds that he expects to be upgraded or downgraded. Potential upgrades that Thomas identifies are added to the portfolio (or, if already in the portfolio, are increased in proportion to other holdings). Potential downgrades are sold from the portfolio. Thomas's portfolio's current holdings include several bonds issued by companies in the oil and gas exploration and refining industries. Year-end rating updates are expected to occur in a few days, and Thomas is preparing to adjust his portfolio in advance of expected changes in credit ratings.

Thomas has been discussing his fixed-income strategies with fellow portfolio manager Shawna Reese. Reese suggests that while Thomas's general approach is suitable, the overall credit-analysis strategy could be improved. Reese recommends using the present value of expected loss as a metric in credit analysis.

Reese makes the following statement to Thomas:

Reese's Statement: "The present value of expected loss is a credit measure that makes two modifications to the expected loss metric. The first adjustment relates to risk premium, and the second is related to the time value of money."

Reese provides information about 2-year, 4% Pistar Inc. bonds as shown in Exhibit 1. The coupon on the bonds is paid semiannually.

Exhibit 1: Term Structure of Credit Spreads on Pistar bonds

<i>Time to Cash Flow</i>	<i>Risk-Free Spot Rate</i>	<i>Credit Spread (%)</i>
0.5	1.5%	0.20%
1	1.75%	0.25%
1.5	2.00%	0.30%
2	2.25%	0.35%

As part of his portfolio analysis, Thomas also compares credit metrics suitable for ABS to those that are suitable for sovereign debt.

Thomas concludes his analysis by comparing the swap rate curve to a government bond yield curve.

.....

The risk premium mentioned in Reese's statement is *most likely* referring to the:

- A) difference in yield between a risky security and a treasury security.
- B) additional premium for risky securities that have embedded options.
- C) adjustment to the probabilities to account for risk of the cash flows.

Question #38 of 60

Question ID: 691645

Michael Thomas, CFA, is a fixed-income portfolio manager for TFC Investments. As part of his portfolio strategy for the Prosperity Fund, Thomas seeks out bonds that he expects to be upgraded or downgraded. Potential upgrades that Thomas identifies are added to the portfolio (or, if already in the portfolio, are increased in proportion to other holdings). Potential downgrades are sold from the portfolio. Thomas's portfolio's current holdings include several bonds issued by companies in the oil and gas exploration and refining industries. Year-end rating updates are expected to occur in a few days, and Thomas is preparing to adjust his portfolio in advance of expected changes in credit ratings.

Thomas has been discussing his fixed-income strategies with fellow portfolio manager Shawna Reese. Reese suggests that while Thomas's general approach is suitable, the overall credit-analysis strategy could be improved. Reese recommends using the present value of expected loss as a metric in credit analysis.

Reese makes the following statement to Thomas:

Reese's Statement: "The present value of expected loss is a credit measure that makes two modifications to the expected loss metric. The first adjustment relates to risk premium, and the second is related to the time value of money."

Reese provides information about 2-year, 4% Pistar Inc. bonds as shown in Exhibit 1. The coupon on the bonds is paid semiannually.

Exhibit 1: Term Structure of Credit Spreads on Pistar bonds

<i>Time to Cash Flow</i>	<i>Risk-Free Spot Rate</i>	<i>Credit Spread (%)</i>
0.5	1.5%	0.20%
1	1.75%	0.25%
1.5	2.00%	0.30%
2	2.25%	0.35%

As part of his portfolio analysis, Thomas also compares credit metrics suitable for ABS to those that are suitable for sovereign debt.

Thomas concludes his analysis by comparing the swap rate curve to a government bond yield curve.

.....

Under the option analogy of the structural model, owning a company's debt is economically equivalent to owning a riskless bond and simultaneously

- A) buying an American put option on the assets of the company.
- B) selling a European put option on the assets of the company.
- C) buying a European put option on the assets of the company.

Question #39 of 60

Question ID: 691646

Michael Thomas, CFA, is a fixed-income portfolio manager for TFC Investments. As part of his portfolio strategy for the Prosperity Fund, Thomas seeks out bonds that he expects to be upgraded or downgraded. Potential upgrades that Thomas identifies are added to the portfolio (or, if already in the portfolio, are increased in proportion to other holdings). Potential downgrades are sold from the portfolio. Thomas's portfolio's current holdings include several bonds issued by companies in the oil and gas exploration and refining industries. Year-end rating updates are expected to occur in a few days, and Thomas is preparing to adjust his portfolio in advance of expected changes in credit ratings.

Thomas has been discussing his fixed-income strategies with fellow portfolio manager Shawna Reese. Reese suggests that while Thomas's general approach is suitable, the overall credit-analysis strategy could be improved. Reese recommends using the present value of expected loss as a metric in credit analysis.

Reese makes the following statement to Thomas:

Reese's Statement: "The present value of expected loss is a credit measure that makes two modifications to the expected loss metric. The first adjustment relates to risk premium, and the second is related to the time value of money."

Reese provides information about 2-year, 4% Pistar Inc. bonds as shown in Exhibit 1. The coupon on the bonds is paid semiannually.

Exhibit 1: Term Structure of Credit Spreads on Pistar bonds

<i>Time to Cash Flow</i>	<i>Risk-Free Spot Rate</i>	<i>Credit Spread (%)</i>
0.5	1.5%	0.20%
1	1.75%	0.25%
1.5	2.00%	0.30%
2	2.25%	0.35%

As part of his portfolio analysis, Thomas also compares credit metrics suitable for ABS to those that are suitable for sovereign debt.

Thomas concludes his analysis by comparing the swap rate curve to a government bond yield curve.

Which of the following statements *least accurately* describes an assumption made under the structural form models of credit analysis?

- A) The company's assets trade in frictionless markets.

- B) The risk-free interest rate is constant.
- C) The value of the company's assets at maturity of the debt has a normal distribution.

Question #40 of 60

Question ID: 691647

Michael Thomas, CFA, is a fixed-income portfolio manager for TFC Investments. As part of his portfolio strategy for the Prosperity Fund, Thomas seeks out bonds that he expects to be upgraded or downgraded. Potential upgrades that Thomas identifies are added to the portfolio (or, if already in the portfolio, are increased in proportion to other holdings). Potential downgrades are sold from the portfolio. Thomas's portfolio's current holdings include several bonds issued by companies in the oil and gas exploration and refining industries. Year-end rating updates are expected to occur in a few days, and Thomas is preparing to adjust his portfolio in advance of expected changes in credit ratings.

Thomas has been discussing his fixed-income strategies with fellow portfolio manager Shawna Reese. Reese suggests that while Thomas's general approach is suitable, the overall credit-analysis strategy could be improved. Reese recommends using the present value of expected loss as a metric in credit analysis.

Reese makes the following statement to Thomas:

Reese's Statement: "The present value of expected loss is a credit measure that makes two modifications to the expected loss metric. The first adjustment relates to risk premium, and the second is related to the time value of money."

Reese provides information about 2-year, 4% Pistar Inc. bonds as shown in Exhibit 1. The coupon on the bonds is paid semiannually.

Exhibit 1: Term Structure of Credit Spreads on Pistar bonds

<i>Time to Cash Flow</i>	<i>Risk-Free Spot Rate</i>	<i>Credit Spread (%)</i>
0.5	1.5%	0.20%
1	1.75%	0.25%
1.5	2.00%	0.30%
2	2.25%	0.35%

As part of his portfolio analysis, Thomas also compares credit metrics suitable for ABS to those that are suitable for sovereign debt.

Thomas concludes his analysis by comparing the swap rate curve to a government bond yield curve.

The present value of expected loss on \$1,000 face-value Pistar bonds is *closest* to:

- A) \$6.96.
- B) \$18.27.
- C) \$43.44.

Question #41 of 60

Question ID: 691648

Michael Thomas, CFA, is a fixed-income portfolio manager for TFC Investments. As part of his portfolio strategy for the Prosperity Fund, Thomas seeks out bonds that he expects to be upgraded or downgraded. Potential upgrades that Thomas identifies are added to the portfolio (or, if already in the portfolio, are increased in proportion to other holdings). Potential downgrades are sold from the portfolio. Thomas's portfolio's current holdings include several bonds issued by companies in the oil and gas exploration and refining industries. Year-end rating updates are expected to occur in a few days, and Thomas is preparing to adjust his portfolio in advance of expected changes in credit ratings.

Thomas has been discussing his fixed-income strategies with fellow portfolio manager Shawna Reese. Reese suggests that while Thomas's general approach is suitable, the overall credit-analysis strategy could be improved. Reese recommends using the present value of expected loss as a metric in credit analysis.

Reese makes the following statement to Thomas:

Reese's Statement: "The present value of expected loss is a credit measure that makes two modifications to the expected loss metric. The first adjustment relates to risk premium, and the second is related to the time value of money."

Reese provides information about 2-year, 4% Pistar Inc. bonds as shown in Exhibit 1. The coupon on the bonds is paid semiannually.

Exhibit 1: Term Structure of Credit Spreads on Pistar bonds

<i>Time to Cash Flow</i>	<i>Risk-Free Spot Rate</i>	<i>Credit Spread (%)</i>
0.5	1.5%	0.20%
1	1.75%	0.25%
1.5	2.00%	0.30%
2	2.25%	0.35%

As part of his portfolio analysis, Thomas also compares credit metrics suitable for ABS to those that are suitable for sovereign debt.

Thomas concludes his analysis by comparing the swap rate curve to a government bond yield curve.

Do the credit risk measures probability of default and probability of loss *most closely* relate to asset-backed securities (ABS) or sovereign bonds?

Probability of default Probability of loss

- A)** ABS ABS
- B)** ABS Sovereign bond
- C)** Sovereign bond ABS

Question #42 of 60

Question ID: 691637

Michael Thomas, CFA, is a fixed-income portfolio manager for TFC Investments. As part of his portfolio strategy for the Prosperity Fund, Thomas seeks out bonds that he expects to be upgraded or downgraded. Potential upgrades that Thomas identifies are added to the portfolio (or, if already in the portfolio, are increased in proportion to other holdings). Potential downgrades are sold from the portfolio. Thomas's portfolio's current holdings include several bonds issued by companies in the oil and gas exploration and refining industries. Year-end rating updates are expected to occur in a few days, and Thomas is preparing to adjust his portfolio in advance of expected changes in credit ratings.

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1	1.75%	0.25%
1.5	2.00%	0.30%
2	2.25%	0.35%

As part of his portfolio analysis, Thomas also compares credit metrics suitable for ABS to those that are suitable for sovereign debt.

Thomas concludes his analysis by comparing the swap rate curve to a government bond yield curve.

Which of the following statements regarding the choice between government bond yield curves and swap-rate curves as a benchmark interest rate curve is *most accurate*?

- A)** The swap-rate curve is preferred because swap curves are comparable across countries since they reflect similar levels of credit risk.
- B)** Government bond yield curves are preferred because they are based on a more complete set of market yields.
- C)** Government bond yield curves are preferred because the lack of a liquid secondary market can distort swap yields compared with government bond yields.

Question #43 of 60

Question ID: 692690

Use the following information to answer Questions 103 through 108.

MediSoft Inc. develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception ten years ago, averaging 25% growth in sales over the past decade. The company went public three years ago. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

At the time of issuance, the convertible bond had a coupon rate of 7.25%, a par value of \$1,000, a conversion price of \$55.56, and ten years until maturity. Two years after issuance, the bond became callable at 102% of par value. Soon after the issuance of the convertible bond, the company issued another series of bonds, which were putable but contained no conversion or call features. The putable bonds were issued with a coupon of 8.0%, a par value of \$1,000, and 15 years until maturity. The putable bond has a European-style option exercisable 10 years after issuance at par. The bonds were issued three years ago.

MediSoft's convertible bonds are now trading in the market for a price of \$947 with an estimated straight value of \$917. The company's putable bonds are trading at a price of \$1,052. Volatility in the price of MediSoft's common stock has been relatively high over the past few months. Currently, the stock is priced at \$50 on the New York Stock Exchange and is expected to continue its annual dividend in the amount of \$1.80 per share.

High-tech industry analysts for Brown & Associates, a money management firm specializing in fixed-income investments, have been closely following MediSoft ever since it went public three years ago. In general, portfolio managers at Brown & Associates do not participate in initial offerings of debt investments, preferring instead to see how the issue trades before considering taking a position in the issue. Because MediSoft's bonds have had ample time to trade in the marketplace, analysts and portfolio managers have taken an interest in the company's bonds. At a meeting to discuss the merits of MediSoft's bonds, the following comments were made by various portfolio managers and analysts at Brown & Associates:

"Choosing to invest in MediSoft's convertible bond would benefit our portfolios in many ways, but the primary benefit is the limited downside risk associated with the bond. Because the straight value will provide a floor for the value of the convertible bond, downside risk is limited to the difference between the market price of the bond and the straight value."

"Decreasing volatility in the price of MediSoft's common stock as well as increasing volatility in the level of interest rates are expected in the near future. The combined effects of these changes in volatility will be a decrease in the price of MediSoft's putable bonds and an increase in the price of the convertible bonds. Therefore, only the convertible bonds would be a suitable purchase."

Calculate the market conversion premium per share for MediSoft's convertible bonds.

A) \$2.61.

- B) \$2.95.
- C) \$5.56.

Question #44 of 60

Question ID: 692691

MediSoft Inc. develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception ten years ago, averaging 25% growth in sales over the past decade. The company went public three years ago. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

At the time of issuance, the convertible bond had a coupon rate of 7.25%, a par value of \$1,000, a conversion price of \$55.56, and ten years until maturity. Two years after issuance, the bond became callable at 102% of par value. Soon after the issuance of the convertible bond, the company issued another series of bonds, which were putable but contained no conversion or call features. The putable bonds were issued with a coupon of 8.0%, a par value of \$1,000, and 15 years until maturity. The putable bond has a European-style option exercisable 10 years after issuance at par. The bonds were issued three years ago.

MediSoft's convertible bonds are now trading in the market for a price of \$947 with an estimated straight value of \$917. The company's putable bonds are trading at a price of \$1,052. Volatility in the price of MediSoft's common stock has been relatively high over the past few months. Currently, the stock is priced at \$50 on the New York Stock Exchange and is expected to continue its annual dividend in the amount of \$1.80 per share.

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"Decreasing volatility in the price of MediSoft's common stock as well as increasing volatility in the level of interest rates are expected in the near future. The combined effects of these changes in volatility will be a decrease in the price of MediSoft's putable bonds and an increase in the price of the convertible bonds. Therefore, only the convertible bonds would be a suitable purchase."

The minimum value of the convertible bond today is *closest* to:

- A) \$900.

B) \$917.

C) \$947.

Question #45 of 60

Question ID: 692688

MediSoft Inc. develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception ten years ago, averaging 25% growth in sales over the past decade. The company went public three years ago. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

At the time of issuance, the convertible bond had a coupon rate of 7.25%, a par value of \$1,000, a conversion price of \$55.56, and ten years until maturity. Two years after issuance, the bond became callable at 102% of par value. Soon after the issuance of the convertible bond, the company issued another series of bonds, which were putable but contained no conversion or call features. The putable bonds were issued with a coupon of 8.0%, a par value of \$1,000, and 15 years until maturity. The putable bond has a European-style option exercisable 10 years after issuance at par. The bonds were issued three years ago.

MediSoft's convertible bonds are now trading in the market for a price of \$947 with an estimated straight value of \$917. The company's putable bonds are trading at a price of \$1,052. Volatility in the price of MediSoft's common stock has been relatively high over the past few months. Currently, the stock is priced at \$50 on the New York Stock Exchange and is expected to continue its annual dividend in the amount of \$1.80 per share.

High-tech industry analysts for Brown & Associates, a money management firm specializing in fixed-income investments, have been closely following MediSoft ever since it went public three years ago. In general, portfolio managers at Brown & Associates do not participate in initial offerings of debt investments, preferring instead to see how the issue trades before considering taking a position in the issue. Because MediSoft's bonds have had ample time to trade in the marketplace, analysts and portfolio managers have taken an interest in the company's bonds. At a meeting to discuss the merits of MediSoft's bonds, the following comments were made by various portfolio managers and analysts at Brown & Associates:

"Choosing to invest in MediSoft's convertible bond would benefit our portfolios in many ways, but the primary benefit is the limited downside risk associated with the bond. Because the straight value will provide a floor for the value of the convertible bond, downside risk is limited to the difference between the market price of the bond and the straight value."

"Decreasing volatility in the price of MediSoft's common stock as well as increasing volatility in the level of interest rates are expected in the near future. The combined effects of these changes in volatility will be a decrease in the price of MediSoft's putable bonds and an increase in the price of the convertible bonds. Therefore, only the convertible bonds would be a suitable purchase."

Suppose that MediSoft wants to issue new bonds but wants to issue the bonds at-or-above par value. Which of the following bonds would *most closely* match their criteria?

- A) 7-year, 7.25% convertible bond with a conversion price of \$56.
- B) 7-year, 7.25% callable bond, callable in two years at 102% of par.
- C) 7-year, 8% coupon bond extendible for five years at the same coupon rate.

Question #46 of 60

Question ID: 692693

MediSoft Inc. develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception ten years ago, averaging 25% growth in sales over the past decade. The company went public three years ago. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

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Under what circumstances will the analyst's comments regarding the limited downside risk of MediSoft's convertible bonds be accurate?

- A) Short-term and long-term interest rates are expected to remain the same.
- B) The Federal Reserve Bank decides to pursue a restrictive monetary policy.
- C) The convertible bond is trading in the market as a common stock equivalent.

Question #47 of 60

Question ID: 692689

MediSoft Inc. develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception ten years ago, averaging 25% growth in sales over the past decade. The company went public three years ago. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

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"Decreasing volatility in the price of MediSoft's common stock as well as increasing volatility in the level of interest rates are expected in the near future. The combined effects of these changes in volatility will be a decrease in the price of MediSoft's putable bonds and an increase in the price of the convertible bonds. Therefore, only the convertible bonds would be a suitable purchase."

If the OAS on Medisoft's straight bond was estimated to be 48bps, which of the following statements is *most accurate*?

- A) The OAS of callable bond will be greater than 48bps, and the OAS of the convertible bond will be less than 48bps.
 - B) The OAS of the convertible bond will be less than 48bps, while the OAS of the putable bond will be greater than 48bps.
 - C) The OAS of the callable, putable and convertible bond should be equal to 48bps.
-

Question #48 of 60

Question ID: 692692

MediSoft Inc. develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception ten years ago, averaging 25% growth in sales over the past decade. The company went public three years ago. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

At the time of issuance, the convertible bond had a coupon rate of 7.25%, a par value of \$1,000, a conversion price of \$55.56, and ten years until maturity. Two years after issuance, the bond became callable at 102% of par value. Soon after the issuance of the convertible bond, the company issued another series of bonds, which were putable but contained no conversion or call features. The putable bonds were issued with a coupon of 8.0%, a par value of \$1,000, and 15 years until maturity. The putable bond has a European-style option exercisable 10 years after issuance at par. The bonds were issued three years ago.

MediSoft's convertible bonds are now trading in the market for a price of \$947 with an estimated straight value of \$917. The company's putable bonds are trading at a price of \$1,052. Volatility in the price of MediSoft's common stock has been relatively high over the past few months. Currently, the stock is priced at \$50 on the New York Stock Exchange and is expected to continue its annual dividend in the amount of \$1.80 per share.

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"Decreasing volatility in the price of MediSoft's common stock as well as increasing volatility in the level of interest rates are expected in the near future. The combined effects of these changes in volatility will be a decrease in the price of MediSoft's putable bonds and an increase in the price of the convertible bonds. Therefore, only the convertible bonds would be a suitable purchase."

Evaluate the portfolio managers' comments regarding the changes in the values of MediSoft's bonds resulting from changes in the volatility of the company's common stock and the volatility of interest rates. The managers were:

- A) correct only with regard to the convertible bonds.
- B) correct only with regard to the putable bonds.
- C) incorrect with regard to both securities.

Question #49 of 60

Question ID: 691649

Use the following information to answer Questions 109 through 114.

James Walker is the chief financial officer for Lothar Corporation, a U.S. mining company that specializes in worldwide exploration for and excavation of precious metals. Lothar Corporation generally tries to maintain a debt-to-capital ratio of approximately 45% and has successfully done so for the past seven years. Due to the time lag between the discovery of an extractable vein of metal and the eventual sale of the excavated material, the company frequently must issue short-term debt to fund its operations. Issuing these one- to six-month notes sometimes pushes Lothar's debt-to-capital ratio above its long-term target, but the cash provided from the short-term financing is necessary to complete the majority of the company's mining projects.

Walker has estimated that extraction of silver deposits in southern Australia has eight months until project completion. However, funding for the project will run out in approximately six months. In order to cover the funding gap, Walker will have to issue short-term notes with a principal value of \$1,275,000 at an unknown future interest rate. To mitigate the interest rate uncertainty, Walker has decided to enter into a forward rate agreement (FRA) based on LIBOR which currently has a term structure as shown in Exhibit 1.

Exhibit 1		Exhibit 2	
LIBOR Rates ($t = 0$)		LIBOR Rates ($t = 90$)	
	LIBOR		LIBOR
90-day	4.28%	90-day	5.12%
180-day	4.52%	150-day	5.96%
240-day	5.11%	210-day	6.03%
360-day	5.92%	300-day	6.41%

Three months after establishing the position in the forward rate agreement, LIBOR interest rates have shifted, causing the value of Lothar's FRA position to change as well. The new LIBOR term structure is shown in Exhibit 2.

While Walker is estimating the change in the value of the original FRA position, he receives a memo from the chief operating officer of Lothar, Maria Steiner, informing him of a major delay in one of the company's South African mining projects. In the memo, Steiner states the following:

"As usual, the project delay will require a short-term loan to cover the funding shortage that will accompany the extra time until project completion. I have estimated that in 210 days, we will require a 90-day project loan in the amount of \$2,350,000. I would like you to establish another FRA position, this time with a contract rate of 6.95%."

Walker discusses some of these strategies with Pete Barka, partner at the brokerage firm that clears derivatives trades for Lothar. Barka suggests options on the Nasdaq 100 index futures as a use for Lothar's excess cash. September futures price on the Nasdaq 100 index is currently at 4243. Three- month calls and puts with a strike price of 4200 are available. Exhibit 3 shows information about the options.

Exhibit 3 Three-Month Options on Nasdaq 100

Strike price (for both calls and puts)	\$4200
Call premium	\$243
Put premium	\$196
Implied volatility	26%
Continuously compounded risk-free rate	0.35%
$N(d_1)$	0.5597
$N(d_2)$	0.5080

Given data in Exhibit 1, which of the following was *closest* to the price of the FRA on the date of the contract's inception?

- A) 4.7%.
- B) 6.8%.
- C) 7.2%.

Question #50 of 60

Question ID: 691651

James Walker is the chief financial officer for Lothar Corporation, a U.S. mining company that specializes in worldwide exploration for and excavation of precious metals. Lothar Corporation generally tries to maintain a debt-to-capital ratio of approximately 45% and has successfully done so for the past seven years. Due to the time lag between the discovery of an extractable vein of metal and the eventual sale of the excavated material, the company frequently must issue short-term debt to fund its operations. Issuing these one- to six-month notes sometimes pushes Lothar's debt-to-capital ratio above its long-term target, but the cash provided from the short-term financing is necessary to complete the majority of the company's mining projects.

Walker has estimated that extraction of silver deposits in southern Australia has eight months until project completion. However, funding for the project will run out in approximately six months. In order to cover the funding gap, Walker will have to issue short-term notes with a principal value of \$1,275,000 at an unknown future interest rate. To mitigate the interest rate uncertainty, Walker has decided to enter into a forward rate agreement (FRA) based on LIBOR which currently has a term structure as shown in Exhibit 1.

Exhibit 1		Exhibit 2	
LIBOR Rates ($t = 0$)		LIBOR Rates ($t = 90$)	
	LIBOR		LIBOR
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240-day	5.11%	210-day	6.03%
360-day	5.92%	300-day	6.41%

Three months after establishing the position in the forward rate agreement, LIBOR interest rates have shifted, causing the value of Lothar's FRA position to change as well. The new LIBOR term structure is shown in Exhibit 2.

While Walker is estimating the change in the value of the original FRA position, he receives a memo from the chief operating officer of Lothar, Maria Steiner, informing him of a major delay in one of the company's South African mining projects. In the memo, Steiner states the following:

"As usual, the project delay will require a short-term loan to cover the funding shortage that will accompany the extra time until project completion. I have estimated that in 210 days, we will require a 90-day project loan in the amount of \$2,350,000. I would like you to establish another FRA position, this time with a contract rate of 6.95%."

Walker discusses some of these strategies with Pete Barka, partner at the brokerage firm that clears derivatives trades for Lothar. Barka suggests options on the Nasdaq 100 index futures as a use for Lothar's excess cash. September futures price on the Nasdaq 100 index is currently at 4243. Three-month calls and puts with a strike price of 4200 are available. Exhibit 3 shows information about the options.

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Call premium	\$243
Put premium	\$196
Implied volatility	26%
Continuously compounded risk-free rate	0.35%
$N(d_1)$	0.5597
$N(d_2)$	0.5080

Which of the following is *closest* to the value of the forward rate agreement three months after the inception of the contract (from Walker's perspective)? For this question only, assume that the interest rate at inception was 6.0%.

- A) \$2,340.
- B) -\$3,266.
- C) \$3,266.

Question #51 of 60

Question ID: 691653

James Walker is the chief financial officer for Lothar Corporation, a U.S. mining company that specializes in worldwide exploration for and excavation of precious metals. Lothar Corporation generally tries to maintain a debt-to-capital ratio of approximately 45% and has successfully done so for the past seven years. Due to the time lag between the discovery of an extractable vein of metal and the eventual sale of the excavated material, the company frequently must issue short-term debt to fund its operations. Issuing these one- to six-month notes sometimes pushes Lothar's debt-to-capital ratio above its long-

Walker has estimated that extraction of silver deposits in southern Australia has eight months until project completion. However, funding for the project will run out in approximately six months. In order to cover the funding gap, Walker will have to issue short-term notes with a principal value of \$1,275,000 at an unknown future interest rate. To mitigate the interest rate uncertainty, Walker has decided to enter into a forward rate agreement (FRA) based on LIBOR which currently has a term structure as shown in Exhibit 1.

Exhibit 1		Exhibit 2	
LIBOR Rates ($t = 0$)		LIBOR Rates ($t = 90$)	
	LIBOR		LIBOR
90-day	4.28%	90-day	5.12%
180-day	4.52%	150-day	5.96%
240-day	5.11%	210-day	6.03%
360-day	5.92%	300-day	6.41%

Three months after establishing the position in the forward rate agreement, LIBOR interest rates have shifted, causing the value of Lothar's FRA position to change as well. The new LIBOR term structure is shown in Exhibit 2.

While Walker is estimating the change in the value of the original FRA position, he receives a memo from the chief operating officer of Lothar, Maria Steiner, informing him of a major delay in one of the company's South African mining projects. In the memo, Steiner states the following:

"As usual, the project delay will require a short-term loan to cover the funding shortage that will accompany the extra time until project completion. I have estimated that in 210 days, we will require a 90-day project loan in the amount of \$2,350,000. I would like you to establish another FRA position, this time with a contract rate of 6.95%."

Walker discusses some of these strategies with Pete Barka, partner at the brokerage firm that clears derivatives trades for Lothar. Barka suggests options on the Nasdaq 100 index futures as a use for Lothar's excess cash. September futures price on the Nasdaq 100 index is currently at 4243. Three- month calls and puts with a strike price of 4200 are available. Exhibit 3 shows information about the options.

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Continuously compounded risk-free rate	0.35%
$N(d_1)$	0.5597
$N(d_2)$	0.5080

Using the Black model, the call option on the index futures is *best* valued as:

- A) the present value of the difference between the strike rate multiplied by 0.5597 and the current futures price multiplied by 0.508.

- B)** the present value of the difference between the current futures price times 0.5597 and the exercise price multiplied by 0.508.
- C)** the future value of the difference between the current spot price multiplied by 0.5597 and the exercise price multiplied by 0.508.

Question #52 of 60

Question ID: 691650

James Walker is the chief financial officer for Lothar Corporation, a U.S. mining company that specializes in worldwide exploration for and excavation of precious metals. Lothar Corporation generally tries to maintain a debt-to-capital ratio of approximately 45% and has successfully done so for the past seven years. Due to the time lag between the discovery of an extractable vein of metal and the eventual sale of the excavated material, the company frequently must issue short-term debt to fund its operations. Issuing these one- to six-month notes sometimes pushes Lothar's debt-to-capital ratio above its long-term target, but the cash provided from the short-term financing is necessary to complete the majority of the company's mining projects.

Walker has estimated that extraction of silver deposits in southern Australia has eight months until project completion. However, funding for the project will run out in approximately six months. In order to cover the funding gap, Walker will have to issue short-term notes with a principal value of \$1,275,000 at an unknown future interest rate. To mitigate the interest rate uncertainty, Walker has decided to enter into a forward rate agreement (FRA) based on LIBOR which currently has a term structure as shown in Exhibit 1.

Exhibit 1		Exhibit 2	
LIBOR Rates ($t = 0$)		LIBOR Rates ($t = 90$)	
	LIBOR		LIBOR
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240-day	5.11%	210-day	6.03%
360-day	5.92%	300-day	6.41%

Three months after establishing the position in the forward rate agreement, LIBOR interest rates have shifted, causing the value of Lothar's FRA position to change as well. The new LIBOR term structure is shown in Exhibit 2.

While Walker is estimating the change in the value of the original FRA position, he receives a memo from the chief operating officer of Lothar, Maria Steiner, informing him of a major delay in one of the company's South African mining projects. In the memo, Steiner states the following:

"As usual, the project delay will require a short-term loan to cover the funding shortage that will accompany the extra time until project completion. I have estimated that in 210 days, we will require a 90-day project loan in the amount of \$2,350,000. I would like you to establish another FRA position, this time with a contract rate of 6.95%."

Walker discusses some of these strategies with Pete Barka, partner at the brokerage firm that clears derivatives trades for Lothar. Barka suggests options on the Nasdaq 100 index futures as a use for Lothar's excess cash. September futures price on the Nasdaq 100 index is currently at 4243. Three- month calls and puts with a strike price of 4200 are available. Exhibit 3 shows information about the options.

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Strike price (for both calls and puts)	\$4200
Call premium	\$243
Put premium	\$196
Implied volatility	26%
Continuously compounded risk-free rate	0.35%
$N(d_1)$	0.5597
$N(d_2)$	0.5080

When the silver is removed from the mine, it will be sold to an Australian subsidiary before being exported. Walker is concerned that the price of silver and the Australian dollar will both depreciate over the next eight months. Which of the following strategies will be *most* appropriate given Walker's expectations? Establish a:

- A)** short position in a silver forward contract and a short position in a U.S. dollar currency forward contract.
- B)** long position in a silver forward contract and a short position in an Australian dollar currency forward contract.
- C)** short position in a silver forward contract and a long position in a U.S. dollar currency forward contract.

Question #53 of 60

Question ID: 691654

James Walker is the chief financial officer for Lothar Corporation, a U.S. mining company that specializes in worldwide exploration for and excavation of precious metals. Lothar Corporation generally tries to maintain a debt-to-capital ratio of approximately 45% and has successfully done so for the past seven years. Due to the time lag between the discovery of an extractable vein of metal and the eventual sale of the excavated material, the company frequently must issue short-term debt to fund its operations. Issuing these one- to six-month notes sometimes pushes Lothar's debt-to-capital ratio above its long-term target, but the cash provided from the short-term financing is necessary to complete the majority of the company's mining projects.

Walker has estimated that extraction of silver deposits in southern Australia has eight months until project completion. However, funding for the project will run out in approximately six months. In order to cover the funding gap, Walker will have to issue short-term notes with a principal value of \$1,275,000 at an unknown future interest rate. To mitigate the interest rate uncertainty, Walker has decided to enter into a forward rate agreement (FRA) based on LIBOR which currently has a term structure as shown in Exhibit 1.

Exhibit 1		Exhibit 2	
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Three months after establishing the position in the forward rate agreement, LIBOR interest rates have shifted, causing the value of Lothar's FRA position to change as well. The new LIBOR term structure is shown in Exhibit 2.

While Walker is estimating the change in the value of the original FRA position, he receives a memo from the chief operating officer of Lothar, Maria Steiner, informing him of a major delay in one of the company's South African mining projects. In the memo, Steiner states the following:

"As usual, the project delay will require a short-term loan to cover the funding shortage that will accompany the extra time until project completion. I have estimated that in 210 days, we will require a 90-day project loan in the amount of \$2,350,000. I would like you to establish another FRA position, this time with a contract rate of 6.95%."

Walker discusses some of these strategies with Pete Barka, partner at the brokerage firm that clears derivatives trades for Lothar. Barka suggests options on the Nasdaq 100 index futures as a use for Lothar's excess cash. September futures price on the Nasdaq 100 index is currently at 4243. Three-month calls and puts with a strike price of 4200 are available. Exhibit 3 shows information about the options.

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Put premium	\$196
Implied volatility	26%
Continuously compounded risk-free rate	0.35%
$N(d_1)$	0.5597
$N(d_2)$	0.5080

Which of the following is the *most accurate* way to replicate a payer swap?

- A) A zero-cost portfolio consisting of a long cap and a short floor with the same strike rate.
- B) A short cap and long floor with strike rate equal to the swap fixed rate.
- C) A long FRA with maturity equal to the swap tenor.

Question #54 of 60

Question ID: 691652

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term target, but the cash provided from the short-term financing is necessary to complete the majority of the company's mining projects.

Walker has estimated that extraction of silver deposits in southern Australia has eight months until project completion. However, funding for the project will run out in approximately six months. In order to cover the funding gap, Walker will have to issue short-term notes with a principal value of \$1,275,000 at an unknown future interest rate. To mitigate the interest rate uncertainty, Walker has decided to enter into a forward rate agreement (FRA) based on LIBOR which currently has a term structure as shown in Exhibit 1.

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"As usual, the project delay will require a short-term loan to cover the funding shortage that will accompany the extra time until project completion. I have estimated that in 210 days, we will require a 90-day project loan in the amount of \$2,350,000. I would like you to establish another FRA position, this time with a contract rate of 6.95%."

Walker discusses some of these strategies with Pete Barka, partner at the brokerage firm that clears derivatives trades for Lothar. Barka suggests options on the Nasdaq 100 index futures as a use for Lothar's excess cash. September futures price on the Nasdaq 100 index is currently at 4243. Three- month calls and puts with a strike price of 4200 are available. Exhibit 3 shows information about the options.

Exhibit 3 Three-Month Options on Nasdaq 100

Strike price (for both calls and puts)	\$4200
Call premium	\$243
Put premium	\$196
Implied volatility	26%
Continuously compounded risk-free rate	0.35%
$N(d_1)$	0.5597
$N(d_2)$	0.5080

Which of the following transactions should Walker initiate in order to comply with Steiner's request regarding the funding shortage at the South African gold mine? Establish a:

- A)** long position in an off-market FRA by making a payment to the short position.

- B)** short position in an off-market FRA by receiving a payment from the long position.
- C)** long position in an off-market FRA by receiving a payment from the short position.

Question #55 of 60

Question ID: 692694

Use the following information to answer Questions 115 through 120.

Hong Zhou, Jianguo Yeung, and Jm Leor Joeng work for Pearl Asset Management, a large private wealth advisory firm. During lunch they discuss various unique client situations they face and how they plan to resolve them.

Yeung mentions that yesterday he prepared an IPS for one of his clients. Some of the constraints in the IPS included:

Constraint 1: The client requires a minimum return of 8.2% per year.

Constraint 2: The client needs \$50,000 to repay a major loan in six months' time.

Constraint 3: The client plans to retire in 12 years' time, at which point the portfolio will need to be sufficient to support the client's ongoing lifestyle.

Zhou, Yeung, and Joeng are all developing multifactor models to attempt to explain asset price returns. Zhou has built his model based on standardized sensitivities of asset returns to intrinsic valuation model inputs. When Zhou asks Yeung about factors that his model uses to explain the differences in returns of different asset classes, Yeung replies that he can't define exactly what the factors are but insists that his model uses statistical relationships that have been proven to hold over time. Joeng discounts both Zhou and Yeung's approaches and instead insists that surprises cause stock prices to move. Hence, he has built his model based on surprises rather than sensitivities to absolute factors.

Zhou wishes to combine the actively managed Lincoln investment fund with a passively managed fund that tracks the Russell 2000 (which is the benchmark for the Lincoln fund). Expected risk and return data is as follows:

	<i>Lincoln Fund</i>	<i>Russell 2000</i>
Expected annual return	7.6%	6.5%
Return standard deviation	19.0%	11.0%
Active risk	5.0%	0.0%
The risk-free rate is 3.0%		

Joeng asks Zhou about risk premium on an asset. Specifically, Joeng wants to know the impact on the risk premium if an asset's future value is negatively correlated with investors' utility from future consumption. Joeng also wants to know the relationship between a country's growth rate and the real risk-free rate.

How many of Yeung's constraints would be accurately regarded as a constraint in an investment policy statement?

- A) One.
- B) Two.
- C) Three.

Question #56 of 60

Question ID: 692695

Hong Zhou, Jianguo Yeung, and Jm Leor Joeng work for Pearl Asset Management, a large private wealth advisory firm. During lunch they discuss various unique client situations they face and how they plan to resolve them.

Yeung mentions that yesterday he prepared an IPS for one of his clients. Some of the constraints in the IPS included:

Constraint 1: The client requires a minimum return of 8.2% per year.

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Zhou, Yeung, and Joeng are all developing multifactor models to attempt to explain asset price returns. Zhou has built his model based on standardized sensitivities of asset returns to intrinsic valuation model inputs. When Zhou asks Yeung about factors that his model uses to explain the differences in returns of different asset classes, Yeung replies that he can't define exactly what the factors are but insists that his model uses statistical relationships that have been proven to hold over time. Joeng discounts both Zhou and Yeung's approaches and instead insists that surprises cause stock prices to move. Hence, he has built his model based on surprises rather than sensitivities to absolute factors.

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Joeng asks Zhou about risk premium on an asset. Specifically, Joeng wants to know the impact on the risk premium if an asset's future value is negatively correlated with investors' utility from future consumption. Joeng also wants to know the relationship between a country's growth rate and the real risk-free rate.

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Regarding the use of multifactor models, which of the following statements is *most likely* to be correct?

- A)** Zhou is using a macroeconomic model, Yeung is using a fundamental factor model, and Joeng is using principal component analysis.
- B)** Zhou is using a fundamental factor model, Yeung is using principal component analysis, and Joeng is using a macroeconomic model.
- C)** Zhou is using principal component analysis, Yeung is using a macroeconomic model, and Joeng is using a fundamental factor model.

Question #57 of 60

Question ID: 692698

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Yeung mentions that yesterday he prepared an IPS for one of his clients. Some of the constraints in the IPS included:

- Constraint 1:** The client requires a minimum return of 8.2% per year.
- Constraint 2:** The client needs \$50,000 to repay a major loan in six months' time.
- Constraint 3:** The client plans to retire in 12 years' time, at which point the portfolio will need to be sufficient to support the client's ongoing lifestyle.

Zhou, Yeung, and Joeng are all developing multifactor models to attempt to explain asset price returns. Zhou has built his model based on standardized sensitivities of asset returns to intrinsic valuation model inputs. When Zhou asks Yeung about factors that his model uses to explain the differences in returns of different asset classes, Yeung replies that he can't define exactly what the factors are but insists that his model uses statistical relationships that have been proven to hold over time. Joeng discounts both Zhou and Yeung's approaches and instead insists that surprises cause stock prices to move. Hence, he has built his model based on surprises rather than sensitivities to absolute factors.

Zhou wishes to combine the actively managed Lincoln investment fund with a passively managed fund that tracks the Russell 2000 (which is the benchmark for the Lincoln fund). Expected risk and return data is as follows:

	<i>Lincoln Fund</i>	<i>Russell 2000</i>
Expected annual return	7.6%	6.5%
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The risk-free rate is 3.0%		

Joeng asks Zhou about risk premium on an asset. Specifically, Joeng wants to know the impact on the risk premium if an asset's future value is negatively correlated with investors' utility from future consumption. Joeng also wants to know the relationship between a country's growth rate and the real risk-free rate.

To achieve the optimal level of active risk, what proportion of funds would Zhou allocate to the Lincoln fund?

- A) 53%.
- B) 82%.
- C) 151%.

Question #58 of 60

Question ID: 692699

Hong Zhou, Jianguo Yeung, and Jim Leor Joeng work for Pearl Asset Management, a large private wealth advisory firm. During lunch they discuss various unique client situations they face and how they plan to resolve them.

Yeung mentions that yesterday he prepared an IPS for one of his clients. Some of the constraints in the IPS included:

Constraint 1: The client requires a minimum return of 8.2% per year.

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Zhou, Yeung, and Joeng are all developing multifactor models to attempt to explain asset price returns. Zhou has built his model based on standardized sensitivities of asset returns to intrinsic valuation model inputs. When Zhou asks Yeung about factors that his model uses to explain the differences in returns of different asset classes, Yeung replies that he can't define exactly what the factors are but insists that his model uses statistical relationships that have been proven to hold over time. Joeng discounts both Zhou and Yeung's approaches and instead insists that surprises cause stock prices to move. Hence, he has built his model based on surprises rather than sensitivities to absolute factors.

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Joeng asks Zhou about risk premium on an asset. Specifically, Joeng wants to know the impact on the risk premium if an asset's future value is negatively correlated with investors' utility from future consumption. Joeng also wants to know the

relationship between a country's growth rate and the real risk-free rate.

The highest Sharpe ratio that Zhou can achieve by combining the Lincoln fund and the Russell 2000 is *closest* to:

- A) 0.39.
 - B) 0.42.
 - C) 1.12.
-

Question #59 of 60

Question ID: 692696

Hong Zhou, Jianguo Yeung, and Jm Leor Joeng work for Pearl Asset Management, a large private wealth advisory firm. During lunch they discuss various unique client situations they face and how they plan to resolve them.

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Joeng asks Zhou about risk premium on an asset. Specifically, Joeng wants to know the impact on the risk premium if an asset's future value is negatively correlated with investors' utility from future consumption. Joeng also wants to know the

relationship between a country's growth rate and the real risk-free rate.

With regard to Joeng's question, Zhou would *most appropriately* reply that the risk premium would be:

- A) lower.
 - B) higher.
 - C) unaffected by the correlation.
-

Question #60 of 60

Question ID: 692697

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Zhou, Yeung, and Joeng are all developing multifactor models to attempt to explain asset price returns. Zhou has built his model based on standardized sensitivities of asset returns to intrinsic valuation model inputs. When Zhou asks Yeung about factors that his model uses to explain the differences in returns of different asset classes, Yeung replies that he can't define exactly what the factors are but insists that his model uses statistical relationships that have been proven to hold over time. Joeng discounts both Zhou and Yeung's approaches and instead insists that surprises cause stock prices to move. Hence, he has built his model based on surprises rather than sensitivities to absolute factors.

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Joeng asks Zhou about risk premium on an asset. Specifically, Joeng wants to know the impact on the risk premium if an

asset's future value is negatively correlated with investors' utility from future consumption. Joeng also wants to know the relationship between a country's growth rate and the real risk-free rate.

For countries with high expected economic growth, it is *least likely* that:

- A)** real risk-free rates will be high.
- B)** inter-temporal rate of substitution will be high.
- C)** investors will save less.